DOCUMENT RESUME

ED 403 629 EA 025 798

TITLE	Roads to the Future: Strategic Plan for Education Options in the 21st Century. Final Report.
INSTITUTION	California State Dept. of Education, Sacramento.
REPORT NO	ISBN-0-8011-1118-8
PUB DATE	94
NOTE	153p.; For the summary report, see EA 025 797.
AVAILABLE FROM	Bureau of Publications, Sales Unit, California Department of Education, P.O. Box 271, Sacramento, CA 95812-0271 ($10 plus sales tax for California residents).
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Educational Objectives; *Educational Planning; Elementary Secondary Education; *Long Range Planning; State Action; *Statewide Planning; Strategic Planning
IDENTIFIERS	*California

ABSTRACT

This document presents the recommendations of a special Advisory Committee on Educational Options, which was charged with developing a strategic plan for educational options in California. This working document is intended to set broad goals and program directions for meeting the future needs of California's youth. The introductory section describes the future directions of California education. Section 2 addresses the long-term needs of education, such as adjusting to the information era, combating the skill gap, responding to ethnic and cultural diversity, engaging all students, and making learning a lifelong commitment. The third section provides information on current programs and their performances. Section 4 offers guidelines for the next century, which center on increasing accountability, developing a system of educational options, facilitating student choice and achievement, enhancing staff and program support, and improving planning and coordination. A total of 21 recommendations are offered in the fifth section. The final section describes first steps toward implementing the guidelines outlined in section 4. Twenty-eight exhibits and lists of advisory committee members, project staff, and acknowledgements are included. (LMI)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

EA

ED 403 629

ROADS TO THE FUTURE

Strategic Plan for Educational Options in the 21st Century

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN **OTHER THAN PAPER COPY** HAS BEEN GRANTED BY

T. Smith

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

FINAL REPORT

California Department of Education
Sacramento, 1994

EA 025798

ROADS TO THE FUTURE

Strategic Plan for Educational Options in the 21st Century

SUBMITTED TO

Educational Options Unit
Youth, Adult and Alternative
Educational Services Division

California Department of Education

FINAL REPORT

SUBMITTED BY

1990-1991 Educational Options Advisory Committee

Publishing Information

Roads to the Future: Final Report was published by the California Department of Education, 721 Capitol Mall, Sacramento, California (mailing address: P.O. Box 944272, Sacramento, CA 94244-2720). It was distributed under the provisions of the Library Distribution Act and *Government Code* Section 11096.

© 1994 by the California Department of Education

ISBN 0-8011-1118-8

Ordering Information

Copies of this publication are available for $10 each, plus sales tax for California residents, from the Bureau of Publications, Sales Unit, California Department of Education, P.O. Box 271, Sacramento, CA 95812-0271; FAX (916) 323-0823. See the back of this publication for complete information on payment, including credit card purchases.

A list of other publications available from the Department appears at the back of this publication. An illustrated *Publications Catalog* describing all of the Department's publications can be obtained without charge by writing to the address given above or by calling the Sales Unit at (916) 445-1260.

Table of Contents

Letter of Transmittal v
Advisory Committee and Project Staff vi
Acknowledgments vii

1. Looking to the Future 1-1

1.1 Education for a New Era 1-1
1.2 A New Direction for Education 1-2
1.3 History and Purpose of the Plan 1-5
1.4 Challenge for Collaborative Action 1-5
1.5 Contents of Plan 1-5

2. Long-Term Needs for Educational Options 2-1

2.1 Adjusting Schools to the Information Era 2-1
2.2 Combating the Skill Gap 2-5
2.3 Responding to Ethnic and Cultural Diversity 2-11
2.4 Better Engaging All Students 2-15
2.5 Making Learning a Lifelong Commitment 2-30
2.6 Key Findings 2-32

3. Today's Programs and Their Performance 3-1

3.1 Background on California's School System 3-2
3.2 Programs Outside Public School Districts 3-5
3.3 Comprehensive High Schools 3-12
3.4 Alternative Education and Other Options 3-26
3.5 Key Findings 3-40

4. Guidelines for the 21st Century 4-1

4.1 Increase Accountability 4-2
4.2 Develop a System of Educational Options 4-4
4.3 Facilitate Student Choice and Achievement 4-5
4.4 Enhance Staff and Program Support 4-6
4.5 Improve Planning, Coordination and Linkage 4-7

5. A Plan for Educational Options 5-1

5.1 The Initiatives We Propose 5-2
5.2 Recommendations for Tomorrow 5-4
5.3 How Options Can Meet Common Goals 5-39
5.4 Is It Possible? 5-43

6. Steps to Tomorrow 6-1

6.1 Building the Future on Today's Foundation 6-1
6.2 An Alliance for Quality Education 6-8
6.3 Tomorrow Is Made Today 6-9

List of Exhibits

EXHIBIT		
1.1	Future Directions for Secondary Education	1-3
2.1	Industrial-Based Society Versus Information-Based Society	2-4
2.2	Distribution of California Employment by Industry, 1960–1995	2-7
2.3	Distribution of Jobs by Skill Level Groups, 1984, 2000	2-8
2.4	Levels of Educational Attainment, Subgroups and Total California Population Over 25 Years of Age, 1987	2-8
2.5	Estimated Number of Persons Over Age 14 with Literacy Deficiencies Compared to Total California Population, 1990–2020	2-10
2.6	Youth by Race, Ages 15–19, 1980–2020	2-12
2.7	Average Number of School Years Completed, by Racial/Ethnic Group, 1981–1988	2-13
2.8	Trends in LEP Students in California Public Schools, 1973–1989	2-14
2.9	California High School Graduation Rates and Trends, 1970–1987	2-17
2.10	Enrollment Versus Age 15–19 Cohort	2-17
2.11	Attrition Rate by Race/Ethnicity, 1988	2-18
2.12	Labor Force Status, Ages 16–19, 1986–88	2-19
2.13	Poverty Status of California Youth, Ages 15–19, 1986–88	2-20
2.14	Youthful Offenders, 1977–1989	2-22
2.15	Illicit Drug Use, Ages 12–17, 1988	2-23
2.16	Female Dropouts Compared to Teen Parents, Grades 10–12, Live Births, 1988–89	2-25
2.17	Lifetime Distribution of Education, Work and Retirement/Other for U.S. Males, 1900–1980	2-31
3.1	Structure of Chapter	3-3
3.2	"Core Curriculum" Graduation Requirements Mandated by State Law	3-13
3.3	Estimated Percentage of California High School Students by Track, 1982–1983	3-14
3.4	California High School Enrollment by Grade Level, 1980–1981 to 1988–1989	3-16
3.5	Number of Educational Options Programs and Schools, California 1984–1989	3-27
4.1	Long-Term Planning Themes	4-2
5.1	Strategic Recommendations	5-2
5.2	Recommendations and Their Impacts	5-3
5.3	How Students Would Receive Services	5-41
6.1	First Steps for Implementing Strategic Recommendation	6-3

Letter of Transmittal

This plan summarizes the deliberations and recommendations of a special Advisory Committee on Educational Options charged with developing a strategic plan for educational options within California. This twenty-six member Advisory Committee was appointed during Spring 1990 by State Superintendent of Public Instruction Bill Honig. It was given the mission of assessing future needs for educational options, reviewing the performance of existing educational options, and proposing a long-term plan that ensures that all California youth have the opportunity to obtain the knowledge and skills that will be needed in coming decades. A major emphasis of this project was to find ways to make sure that non-college bound students attain the skills and learning abilities to assure their success in the labor market. This project was administered by the Educational Options Unit of the California Department of Education's Youth, Adult and Alternative Educational Services Division. Pacific Management and Research Associates (**PMRA**) provided consulting services for the project.

Since Spring 1990, the Advisory Committee on Educational Options has met four times to review studies, set goals, develop and approve recommendations. During this time, two background studies were completed and reviewed by the committee. The first focused on the learning needs of the student-age population, and the second on responses of the educational institutions to these needs. These studies are:

- *Needs Assessment for California's Alternative Education Programs*
- *Review of Education Options for California's Youth*

Following review of these studies, the Advisory Committee established long-term planning goals and began a review of proposals to be incorporated into a strategic plan for educational options. This report is a working document intended to set broad goals and program directions for the future.

This plan challenges local communities to use new tools and approaches to improve the education of our youth by providing options that evoke the best for each individual. It proposes broad-scoped directions for meeting this challenge, and recommends an open and ongoing dialogue among stakeholders, at both the state and local levels, to find better ways to prepare today's youth for the world of tomorrow.

Sincerely,

Shirley A. Thornton
Deputy Superintendent
Specialized Programs Branch

Gerald H. Kilbert
Assistant Superintendent
Youth, Adult and Alternative
Educational Services Division

Constance J. Barber
Administrator
Educational Options Unit

Advisory Committee and Project Staff

Advisory Committee

DAVID ALCAMO
Student Representative
Empire High School
Grass Valley

VIOLANDA ARREDONDO
Outreach Consultant
Gonzales Unified School
District, Soledad

CHARLES BALLINGER
Coordinator
Year-Round Education/
Alternative Education
San Diego County Office
of Education, San Diego

MICHAEL D. BARKHURST
Superintendent
Nevada Joint Union
High School District
Grass Valley

HANK BECK
Principal
Eureka Unified School District
Eureka

ROBERT BENBOW
Director
Adult Continuing Education
Baldwin Park Adult School
Baldwin Park

BILL BURNS
President, JCCSAC
San Mateo County Office
of Education, Redwood City

DAVID CRAWFORD
Director
Pregnant Minor/
Teen Parent Program
William Daylor High School
Sacramento

WAYNE CROW
Principal
Robertson High School
Fremont Unified School
District Fremont

DEBORAH CRUZ
Student Representative
Adult Career Training
Baldwin Park Adult School

MARY CURRY
Board Member
Fresno Unified School District
Fresno

JAMES FIGUEROA
Assistant Superintendent
Adult and Occupational
Education, Los Angeles Unified
School District, Los Angeles

JEROME FINNIGAN
Education and Training
Xerox Corporation
El Segundo

SUE GERRISH
Teacher of Special Education
Mission High School
San Diego

STEVE GOLDSTONE
Superintendent
Chino Unified School District
Chino

RONALD GRISTOCK
Vice President
Community Involvement
Wells Fargo Bank
National City

DENNIS HAYS
Teacher, Agua Caliente
Sonoma Unified School District
Boyes, Hot Springs

DOROTHY HUDSPETH
Advisor, Special Funded
Programs, Los Angeles Unified
School District, Division of
Adult and Occupational
Education, Los Angeles

TOM JOHNSON
Assistant Superintendent
Hacienda La Puente
Unified School District
La Puente

JERRY LEW
Human Resource Development
Specialist, Kaiser Foundation
Health Plan, Oakland

AMY LOOMIS
Program Officer
Stuart Foundation
San Francisco

HAZEL MAHONE
Superintendent
Grant Joint Union High School
Sacramento

JENNY OROPEZA
Long Beach Unified
School District
Long Beach

MARILYN RABY
Director of Curriculum
Sources Sequoia Union
High School District
Redwood City

JOHN C. REINKING
Superintendent
Placer County Office
of Education
Auburn

PATRICIA RICKARD
Director
CASAS
San Diego

ERNESTINE SCHNUELLE
Director of Education
Custody Division
Hall of Justice
Los Angeles

SANDY STEIGER
Program Specialist, Adult
and Community Education
Center, Fremont Unified
School District, Fremont

California Department of Education Staff

GERALD KILBERT
Assistant Superintendent
Youth, Adult and Alternative
Educational Services Division
Department of Education

CONSTANCE J. BARBER
Administrator
Educational Options Unit,
Youth, Adult and Alternative
Educational Services Division

VICTORIA BALES-ROST
Partnership Academies
Educational Options Unit

ELOISE BRADRICK
Foster Youth Services
Educational Options Unit

ELIZABETH CARR
Partnership Academies
Educational Options Unit

ROBERT E. EHLERS
Continuation Education
Juvenile Court and
Community Schools
Educational Options Unit

LYNN P. HARTZLER
Independent Study
Public Schools of Choice
Educational Options Unit

RONDA SIMPSON
Teen Pregnancy and Parenting
Program Coordinator
Educational Options Unit

KATHY TSCHOGL
Employment Training Panel
Educational Options Unit

MARY JO WILLIAMS
Continuation Education
Educational Options Unit

Pacific Management and Research Associates Staff

FRED BEST
President and Project Director

BERNADETTE DAWSON
Senior Associate/
Assistant Project Director

LEO CHANG
Computer Systems

TAMMY FLORES
Assistant Project Manager

SONIA KELLER
Receptionist/Project Assistant

NANCY LEWIS
Desktop Publications

TAMMY LEWIS
Research Assistant

STEVE PORTLOCK
Business/Financial Manager

VAN WOOLLEY
Senior Consultant

Acknowledgments

This paper was prepared with advice, information and technical assistance from many people. Pacific Management and Research Associates (**PMRA**) appreciates the assistance provided so generously from the following persons:

Barbara Abbot, Gifted and Talented Education

Carol Abbott, Consultant, Department of Education, Intersegmental Relations Department.

Claudia Alstrom, Greater Avenues for Independence

Sarah J. Andrade, Department of Youth Services

Judith L. Angell, Department of Developmental Services

Salvador Arriaga, Consultant, Migrant Education Office, CDE

Nancy Austin, California Department of Finance

Victoria Baise-Rost, Analyst, Youth, Adult and Alternative Educational Services Division

Roland Boldt, Vocational Education Division, CDE

Dennis Bryan, Department of Rehabilitation

William Burns, Director, The Community Schools Program, San Mateo Office of Education

William Burson, Office of the Deputy Superintendent, CDE

CBEDS, Current Population Survey, Bureau of Labor

Maria Chairez, High Risk Youth, CDE

Fran Jeffries Cook, Director of Admissions, CSU, Stanislaus

Wayne Crow, Principal Robertson High School, Continuation Education

Richard Diaz, CBEDS Unit, CDE

Bob Ehlers, Youth, Adult, and Alternative Educational Services Division, CDE

Lawrence Garetto, Vocational Education Division, CDE

Rosalind Garner, Health Data and Statistics

Irv Gipson, Greater Avenues for Independence

Jim Gonzales, Education Commission of the State, Colorado

Dick Hageman, Employment Development Department

Donna Hart, Contract Specialist, Job Corps—Region IX

Lynn P. Hartzler, PH.D, Consultant, Independent Study, Youth, Adult and Alternative Educational Services Division, CDE

Maria Hernandez, Greater Avenues for Independence

Paula Higashi, State Attorney Generals Office

Jim Higgenboom, Special Project Unit, CDE

Jim Hill, Analyst, Greater Avenues for Independence

John Hutak, Hacienda La Puente Unified School District

Deborah Jay, SRI International

Hans Johnson, California Department of Finance

Ed Kissam, Consultant

Julie Kennedy, Placement/Recruitment Supervisor, Sacramento Job Corps Center, U.S. Department of Labor

Peter Lee, Principal, Sacramento County Court and Community School

Susanne Levitsky, Public Information Officer, California Conservation Corps

Bob Levy, Eastern Stream Center on Resources and Training

Tom Lugo, Migrant Education

Robert G. Marr, Employment Development Department

Marie Monroe, GAIN Assistant, Comprehensive Adult Student Assessment System

Marlene Moody, Budget Office, California Youth Authority

Susan Nisenbaum, Department of Alcohol and Drug Programs

Bill Popkes, Vocational Education Division, CDE

Mary Ann Porter, Department of Social Services

David Ragedale, Evaluation Unit, CDE

Linda Rau, University of California Governmental Affairs Office

Laura Robertson, Intersegmental Coordinating Council

J.W. Rollings, School Climate and Student Support Services Unit, CDE

Lalit Roy, Special Education Division, California Department of Education

Ronda Simpson, Coordinator, Teen Pregnancy and Parenting Programs, Youth, Adult and Alternative Educational Services Division, CDE

Ron Slayton, Local Assistance Bureau, CDE

Scott Slotterbeck, Labor Market Information Division, Employment Development Department

Earl Smith, Employment Development Division

Lynda Smith, Adult Education Unit, CDE

Jeanmarie Solak, Evaluation Unit, CDE

Wayne Spar, Associate Analyst, Information Systems

Sandy Steiger, Program Specialist, Adult and Community Education Center, Fremont Union High School

William Stormer, US Department of Migrant Education

Hank Tabor, California Youth Authority

Fuschia Ward, Assistant Principal, Vista East High School

Kathy Warriner, Curriculum Analyst, California Community Colleges

Gayle Webb, California Basic Education, Department of Services

Randy Weiss, Educational Consultant

James White, Department of Developmental Services

Mary Jo Williams, Consultant, Continuation Education, Youth, Adult and Alternative Educational Services Division, CDE

Jeanine Willie, Missing Persons, Bureau of Justice Information Services

Chuck Wisley, Management Information Services, California Community Colleges

We would like to acknowledge **Catherine Minicucci**, Minicucci Associates, for providing assistance on preparation of two background papers for this project.

The contents of this paper do not necessarily reflect the views of the above persons or institutions they represent.

BEST COPY AVAILABLE

CHAPTER

1 Looking to the Future

This plan proposes a sustained effort to transform California's secondary schools into a system of educational options that provides each student with a learning environment that encourages maximum achievement and holds all students and programs responsible for core education standards.

As we move toward the 21st Century, the challenges and opportunities confronting California's school system will make educational options increasingly important.

The decades ahead hold many promises. Technological innovations will improve the quality of our lives and the productivity of our economy. California's economy is likely to produce a surplus of challenging jobs. Attractive and rewarding careers will be possible. Many social problems—poverty, underemployment, welfare and crime—could be greatly reduced.

The promise of coming decades will depend on education. Our economic competitiveness and quality of life will depend on the skills, initiative, creativity, problem-solving ability, and cooperation of our entire population. In order to cope with the changes of our times, the youth of today must master basic skills and become motivated to learn throughout their lives.

1.1 Education for a New Era

The 1990s will be a watershed decade for education. Nowhere is this more true than in California. Two major forces must be addressed in a forthright manner.

First, California will lead the nation in a large-scale transformation from a manufacturing-based society to an information and service-based society. This transformation is already well underway. The basis of our lives and economy has already moved from the factory floors to offices and service outlets. Today, most of us are more involved with the production and delivery of information and services than with the physical creation of goods. In coming years, powerful technologies will move us into a world in which the flow of information occurs electronically rather than physically. Electronic lines of communication are likely to become more important than the halls, offices and desks that currently give form to our lives. The quantity of information available to all persons and the speed at which it can be accessed will increase exponentially. The way that we work, live and think will change dramatically. Today's school-age youth are already living and responding to this world and are becoming free of habits and perspectives borne of a past era. Our school system must respond to this transformation with educational standards and modes of learning that are relevant to the world in which students will live.

Second, California will also lead the nation in the evolution of cultural pluralism. By the end of the 1990s, there will be no "majority" racial and ethnic group within California's population. This situation already exists among our school-age population. Today's students and tomorrow's adult population comprise an increasingly balanced pluralism of racial and ethnic groups, in which none is a majority. This transformation may lead to friction among racial and ethnic groups, and to the danger of racial discrimination. At the same time, it will make racial discrimination increasingly unacceptable. It also opens the door to a multi-lingual and multi-cultural society that can compete fiercely in a global economy. More important than the colors of skins and national origins, the growing diversity of racial and ethnic groups will create an unparalleled kaleidoscope of personal world views with different values, expectations and norms of behavior. Our stores, places of work, public institutions and schools must find new ways to solve the problems and pursue the opportunities created by this diversity. Our schools will be at the beach head of this transformation. They will confront greater racial, ethnic and personal diversity than our adult institutions. They must be the gateway for assimilating diversity and for teaching today's youth how to deal with diversity. Most importantly, they must find ways to transmit core skills, knowledge and the expectations for citizenship in a democracy to a multi-cultural student population.

Our schools must use new techniques and tools to find multifaceted approaches for learning skills and communicatin g information that is of common importance to us all.

These two unrelenting social and economic trends present a paradox that must be negotiated in every aspect of our lives. On one side, the movement of our society into the "information era" requires that we not only master higher level skills, but greatly increase our ability to communicate information for coordinating our human and material resources. On the other side, the growing ethnic, racial and personal diversity of our population is increasing the problems of communication and coordination. The response from our schools and other social institutions must be to improve our human capacities for communication and better use the technologies that can assist us. Our schools must use new techniques and tools to find multifaceted approaches for learning skills and communicating information that is of common importance to us all.

1.2 A New Direction for Education

Our secondary school system is at a historic crossroads. Schools have the responsibility for nothing less than preparing today's youth to be the stewards of tomorrow. As such, none of our other institutions are under more pressure to improve performance and adapt to changing needs. This pressure represents a real and growing need for change.

This plan presents bold visions for the schools of tomorrow, and the role of options within our schools. It proposes the development of educational options within our school system that are integrated with the help of information technology and held accountable to a common core of educational standards. By moving proactively, we can create an educational system that better meets the needs of our students and our communities (**Exhibit 1.1**).

Exhibit 1.1
FUTURE DIRECTIONS FOR SECONDARY EDUCATION
Educational options must have value to our students and our communities, and be workable within our educational system.

From:	To:
For the Student:	
• Educational achievement measured by time spent in instructional programs.	• Educational achievement measured and certified by demonstration of competencies.
• Instruction obtained primarily in one setting—classrooms.	• Instruction in multiple settings (*e.g.* on—the-job training, lectures, tutors, computer-assisted instruction, TV courses, multi-media courses).
• Limited use of technology.	• Extensive use of technology.
• Limited knowledge of education programs and opportunities.	• Greater knowledge of all available learning opportunities.
• Slow and redundant determination of eligibility for different programs.	• One-stop determination of eligibility for and availability of programs.
• Secondary education restricted primarily to a four-year period during ages 14 to 18.	• Integration of secondary education with the concept of "lifelong learning" so that high school degrees can be earned more routinely after age 19.
• Decisions made by teacher.	• Decisions made by student and parents.
For Communities:	
• "Core Curriculum" based primarily on traditional academic skills and knowledge.	• Traditional "Core Curriculum" augmented with skills and knowledge needed for "information era."
• Education that does not ensure economic competitiveness and social well-being.	• Educational capacity to ensure an economically and socially productive adult population.
• Casual use of evaluation data to improve programs and accountability.	• More systematic use of student achievement and program cost data to evaluate and improve programs.
For the Educational System:	
• Relative autonomy among programs and educational options.	• Use of common measures and information systems to foster greater coordination and cooperation.
• State reimbursement limited to classroom attendance.	• Reimbursement and funding for alternative educational methods.
• Isolation of schools from community and other social agencies.	• Collaboration and integration of services from schools and other social agencies.
• Funding cycles that make it difficult to plan and maintain quality staff.	• Use of information technology to expedite funding and stabilize planning.
• Minimal use of technology.	• Greater use of technology to improve learner access, instruction and administration efficiency.
• Collection of data primarily to meet compliance requirements.	• Use of data to assist learners, improve programs and meet compliance needs.
• Responsiveness at local level with episodic planning for the future.	• Ongoing participation and planning among stakeholders to make education both responsive and proactive.

A brief preview of how educational options can serve students, our state, and educators is provided below:

- For the student, the future can bring easier access to educational resources and learning that is tailored to individual needs. State-of-the-art technology can be used to make individuals more aware of the learning options available to them, and to streamline the processes of enrollment and participation. Alternative approaches to learning can ensure that education is appropriate to, and easily used by, students with different needs and learning styles. Finally, the process of feedback and certification can move progressively to competency assessments and away from "seat time" in order to ensure real gains to students.

The initiatives proposed in this plan are built upon the cornerstones of partnerships among stake-holders, and accountability to students and the community.

- For our state and the economy, we can create the capacity to ensure that tomorrow's adult population has the education and skills to build a competitive economy and better quality of life. Student achievement and program data can be used to guide the improvement of programs so that they provide maximum return to the taxpayer. These data can also guide periodic reassessment and prioritization of instructional areas so that the content of secondary education remains attuned to state and local needs.
- For those who work within our schools, new approaches to funding and use of technology can provide the resources and arrangements to ease the process of responding to challenges. New resources can be developed to make students more aware of programs and encourage the completion of studies. New technologies and alternative instructional methods will provide the flexibility to improve program responsiveness. Procedures for collecting and processing data can be changed so that information serves the needs of students and schools as well as meets compliance requirements. New technologies can cut paperwork, enrich educational activities, and reduce administrative workloads. Finally, participatory planning and policy setting processes can be instigated to facilitate needed changes and reestablish education as a critical component of our state's well being.

This plan proposes nothing less than an all out effort to improve the skills of school age youth and catalyze broad-based commitment to learning that meets the challenges of tomorrow.

The initiatives proposed in this plan are built upon the cornerstones of partnerships among stakeholders, and accountability to students and the community. They empower individuals to improve their skills, but require student commitment and achievement. They provide greater freedom and enhanced resources to educators, but require greater responsiveness and accountability. They promise a better work force for business, but call for greater involvement from business. They offer a better quality of life for all, but require greater support from each of us.

1.3 History and Purpose of the Plan

This plan is a response to the changing demands being placed on California's public school system. It has been produced as a result of a long-term planning project undertaken by the Educational Options Unit of the Youth, Adult and Alternative Educational Services (YAAES) Division of the California Department of Education (CDE). It was developed under the guidance of a twenty-eight member Educational Options Advisory Committee appointed by State Superintendent of Public Education Bill Honig (see Cover Section).

The first charge of the project was been to develop a plan for educational options within the public secondary school system funded through the California Department of Education. However, attention was also given to developing a plan that addresses how our public schools might coordinate with other agencies and educational providers to serve the needs of the State and its population.

The second charge of the project was to improve the linkage between vocational education and other educational options. To meet this goal, particular attention was placed on how educational options can be used to increase the skills and learning capacities of youth oriented toward employment after high school.

It is hoped that this plan will guide local and state policy makers into the 21st Century.

1.4 Challenge for Collaborative Action

This report is one of many plans being produced at the local, state and national levels. Ways must be found to link these efforts, to establish constructive and focused dialogue toward identifying common directions and reconciling differences.

Today's educational system must be reformed to meet the pressing needs of today and tomorrow. Our best thoughts on this issue must be held up for open dialogue and challenges from other perspectives. The quality of our future depends upon the education of today's youth. We have no time to waste and little margin for error.

This report is one of many plans being produced at the local, state and national levels. In California alone, three other state planning projects exist, undertaken from the perspective of the comprehensive high school, vocational education and special education.

All these planning initiatives are grappling with the same issues from different perspectives. Ways must be found to link these efforts, to establish constructive and focused dialogue toward identifying common directions and reconciling differences.

We present this plan with a plea and a challenge for collaborative dialogue and action among all stakeholders and perspectives.

1.5 Contents of Plan

This plan is a general road map for using the same technologies that are pushing us into an "information age" to serve the needs of school age youth who will live and work in an information society. It recommends that students be given significant choice concerning how they meet "core" educational requirements,

opportunities to explore fields beyond core requirements, and increased accountability based upon systematic measures of what students learn.

The following chapters define current and future needs and describe how educational options can help our secondary school system respond to the challenges of our time. The proposals put forth in this plan are intended to ensure that our schools will be self-renewing institutions that continually adjust to meet the needs of a changing society. It has six chapters dealing with the following issues:

- Nature and History of the Plan
- Long-Term Needs for Educational Options
- Nature and Performance of Secondary School Programs
- Long-Term Planning Goals and Themes
- Proposals for Developing a System of Educational Options
- First Steps for Implementing Recommendations

Trends and projections of future needs of our student population present an awesome and critical challenge to our state. If this challenge is not met, it will undercut our economy and our quality of life. This plan is presented with the belief that attention to the future enables us to create and shape the future.

CHAPTER

2 Long-Term Needs for Educational Options

Our society, and the characteristics of our school-age children, are changing dramatically. Growing diversity within our student population and the ongoing transformation of our economy require new approaches from our schools.

Today's student population is dramatically different from what it was twenty years ago, and it will change even more in the future. It is more racially and ethnically diverse, and far more complex in terms of cultural, family and personal backgrounds. Equally important, the youth of today and tomorrow will face a world that is changing in fundamental ways.

This chapter provides an overview of the need for educational options by examining societal and student needs. It is a summary of a more detailed background paper.[1] The needs identified are presented in five sections:

(1) Adjusting Schools to the Information Era

(2) Combating the Skill Gap

(3) Responding to Ethnic and Cultural Diversity

(4) Better Engaging All Students

(5) Making Learning a Life-Long Commitment

A sixth and final section of this chapter summarizes key issues and research findings.

2.1 Adjusting Schools to the Information Era

California is midstream in a transition from the "industrial era" to the "information era." This transition will cause major changes in all sectors of our society, not the least of which is education. The basic functions of our educational system are likely to remain the same. However, the approaches used by tomorrow's schools are likely to change dramatically.

The Social Functions of Education

Educational institutions play both conservative and revolutionary roles. On one hand, they maintain and replicate values, knowledge and the structure of our society. On the other hand, they anticipate the future and prepare people with

[1] Fred Best, Eric Margolis and Van Woolley, ***Educational Needs Assessment for California's Youth***, Pacific Management and Research Associates, Sacramento, California, May 1990.

new skills and attitudes to meet the demands of a changing world. Despite the relentless pace of change in our society, our schools serve fundamental purposes that are likely to persist. Four of the most important follow:

- **Preservation and Transmission of Knowledge and Skills.** Perhaps the most obvious role of our schools is the teaching of skills and knowledge. The most essential of these are the "basics" of reading, writing, mathematics and reasoning skills.

- **Sorting and Selecting.** Americans have long viewed education as a process of screening youth for future roles and responsibilities. It performs a sorting function—directing students toward social positions—supposedly based on aptitude and achievement. In this sense, our schools are a key path to opportunity as well as a "rite of passage" for life achievement.

The most obvious role of our schools is the teaching of skills and knowledge.

- **Socialization and Assimilation.** School systems instill the values, norms and attitudes needed to function in society.[2] Schools are expected to instill common folkways, mores, and values—the "glue" holding society together. Schools teach the work ethic, reverence for learning, and democratic values. They also instill self-discipline in areas such as deportment, hygiene, sexual responsibility, punctuality, civility, diligence, respect for property and people, deferred gratification, patience, turn taking, respect and deference to authority. Schools also help develop pride and self-esteem, vision, imagination and leadership.

- **Custodial Care.** In many cases, educational institutions also play the role of custodians. Since the evolution of widespread public education in the 19th Century, references have been made about the use of schools to "keep youth off the streets." With both positive and negative consequences, schools perform the task of keeping youth and others under control and observation, and away from activities society deems undesirable.

These functions must be performed by any viable society.[3] They have been performed throughout human history—around tribal campfires, in medieval cloisters or Buddhist monasteries, and in the one-room schools of our Western frontier. While these functions are also performed by other institutions—families, employers, sports teams—schools play a central role in meeting these needs.

In the 19th and 20th Centuries, the American high school formulated these functions into a four-fold mission: (1) providing basic education for a literate citizenry, (2) socializing, acculturating and assimilating newcomers, (3) training workers and directing those bound for post-secondary education, and (4) anticipating social change and disseminating the knowledge required to live and work in the future.

In the future, the social functions ascribed to education are likely to persist. However, the approaches used to perform these roles may change in response to transformations occurring within our society.

---

[2] Emile Durkheim (1922), ***Education and Sociology***, The Free Press, Sherwood Fox, Glencoe, Illinois, 1956 (1925); and Everett K. Wilson and Herman Schnurer, ***Moral Education***, The Free Press, Glencoe, Illinois, 1961.

[3] Robert J. Haviqhurst and Burnice Neugarten, ***Society and Education*** (Fourth Edition), Allyn and Bacon Inc., Boston, 1975.

Education to Meet Tomorrow's Needs

California leads the nation as a center for two simultaneous social revolutions. Global technological and economic changes are shifting us relentlessly from basic industrial production to a knowledge and service-based economy, from a mechanical economic base to an information society. Along with this technical and economic transformation has come an equally important demographic revolution. We are moving away from ethnic or cultural "majorities" to multi-cultural, multi-ethnic communities without a dominant group.

Much can be learned about the transformations occurring in our society, and the changes that must occur in our schools, by focusing on how technological advances are realigning the ways we structure our work and daily lives.

Whether we think of this transformation in its technological, economic, social, or political manifestations—or as a combination of all four—the change is profound. On a technological and economic level alone, the changes we are experiencing easily match the magnitude and speed of the transformation from agrarian to industrial society. This "industrial revolution" moved us from the farm to the factory, swept away the social order of feudal Europe, and fueled the democratic revolutions of 1776 and 1789.[4]

Differences exist between the conditions that spawned industrial society and the conditions causing the emergence of the "information era." Still, the "industrial revolution" provides one of the few models available to help us categorize the changes occurring around us (**Exhibit 2.1**).

The nature and impacts of today's technological-economic changes and California's exploding "demographic revolution" are interconnected. However, much can be learned about the transformations occurring in our society, and the changes that must occur in our schools, by focusing on how technological advances are realigning the ways we structure our work and daily lives.[5]

Six axial social changes associated with the shift from an industrial to an information and service-based society are summarized below:

- **Growing Primacy of Information and Service.** Just as our ancestors left farms to work in factories, we are now involved in a massive exodus from factories to office and service work. This does not mean that manufacturing will become less important. Rather, it means that far fewer people will work in factories and that the nature of work in the manufacturing sector will shift from manual labor to technical maintenance and repair of automated machinery.

- **Open and Interactive Flow of Information.** Information, knowledge and skills will become the "raw materials" of tomorrow. Our ability to understand and use technical equipment and other resources will determine our success as individuals and society. Electronic data bases, telecommunications and microprocessors will enable us to access and use information far more extensively than in the past! Information will flow from many sources, take many media forms, and be transferred at breakneck speeds. It will be increasingly difficult to centrally control and direct information. Communication will become two-way and interactive.

[4] Karl Polanyi, ***The Great Transformation***, Beacon Press, Boston, 1967; and T.S. Ashton, ***The Industrial Revolution: 1760–1830***, Oxford University Press, London, 1973.

[5] Daniel Bell, ***The Coming of Post-Industrial Society***, Basic Books Inc., New York, 1973, pages 47–121.

Exhibit 2.1

INDUSTRIAL-BASED SOCIETY VERSUS INFORMATION-BASED SOCIETY

The ongoing transformation from an "industrial society" to the "information era" is causing fundamental changes that will require major realignments within our schools.

Industrial-Based Society:	Information-Based Society:
Production Ethic: Wealth accumulation by deferred gratification and "work ethic." Production was a goal in itself.	**Consumption Ethic:** "Work ethic" replaced by a consumption ethic and immediate gratification.
Conformity: Jobs and products were reduced to standard components. Emphasis on social conformity.	**Diversity:** Production, services and social roles become more flexible. Diversity and even deviation increases.
Centralization: Industrial society was centralized for efficient production; power and decision making flowed from the top down through bureaucratic organization. In a world of standardized and routine products and roles, large scale centralized decision making worked.	**Decentralization:** Constant change and diversity make it impossible for centralized decision making to respond effectively. Power is challenged more frequently, and decision making is becoming more decentralized.
Work to Live: Most people worked with their hands. They expected little out of work besides economic rewards.	**Expectation of Meaningful Jobs:** More people work with concepts and ideas, and expect work to provide a living and a source of meaning.
Binding Careers: Careers were lifelong choices, job changing was avoided and uncommon.	**Career Mobility:** Wider variety of choices. People think in terms of multiple careers and recognize change as a social fact.
Education for Youth: Education was restricted to youth and early adulthood. There was a clean break between school and work.	**Life-Long Education:** Life spans increase and the rate of technological change increase. Multiple careers and lifelong learning become common.
Rigid Class System: Social class and mobility is rigid and circumscribed by race, gender and family class.	**Meritocracy:** Increasing skill demands increase social mobility and cause talent and training to play a larger role in determining class position.
One-Way Information Flows: Communication is face-to-face in words—speeches and lectures, or in print—newspapers, books and letters. Information flows "top-down" and "one-way."	**Interactive Information Flows:** Communication done electronically, at a distance, and uses images, pictures, music and sound as well as words. Communication is increasingly multi-dimensional and interactive.
Mechanical Linkages: The pace of industrial society, and its rate of change, was dictated by mechanical considerations.	**Electronic Linkages:** The information society transmits data at the speed of light, and the data stream is sampled rather than taken whole.
Schooling for the Few: Industrial workers, farmers, and their future wives left school early. White collar workers and those destined for the lower reaches of the middle class completed high school; a small elite attended college.	**Schooling Based on Capability:** In advanced technological society, merit and skill play a larger role in determining opportunity. Competition in technology requires each society to maximize intellectual resources. More people receive more education and training.

- **Increasing Speed of Social Change.** The explosive flow of information will catalyze rapid social change in all areas of our lives. Technological and social innovation will increase. These changes will be assimilated and accelerate change quickly.

- **Higher, Different and Changing Skill Requirements.** Most jobs, and the general demands of life, will require higher levels of skill. Of equal or greater importance, the skills we will need in the future will be different from those required in the past. Further, they will continue to change. Education will no longer be completed in youth and early childhood. Lifelong learning and "learning a living" will become increasingly commonplace.

- **Move to Diversity and Individualization.** The flow of people, ideas and resources will combine to foster a trend away from the conformity and standardization that typified the "industrial era" to increasing diversity, individualization and customization. "Information era" technology will support this trend. The quickening flow of information will cultivate innovation, experimentation and diversification. Our tools and productive equipment will enable us to use factory machinery to make products customized for individuals.

We are moving from a society where individuals are organized around tools, products and services to a world where resources are organized around individuals.

- **Trend to Decentralization.** The flow of information, complexity of organizations, and diversity of our society will become impossible to coordinate centrally. Administrative apparatus and decision making hierarchies will give way to the coordination of our society through the "market-like" flow of information. Electronic information systems will work within preset decision rules to assist individuals in making decisions and taking actions without direct "supervision."

If there is one overarching theme, it is the shift away from heavy mass production technology that makes standardized products and services for the "masses." In its place, we are developing flexible and increasingly miniaturized tools and equipment that use stored information to produce goods and services that are tailored increasingly to the individual.[6] In short, we are moving from a society where individuals are organized around tools, products and services to a world where resources are organized around individuals.

California is now at the doorstep of a new era—one that promises to transform how we work, learn and live. These changes will increase the need for options within our schools and make such options possible. In the past, educational options arose to meet the special needs of portions of the student population. In the future, educational options must rise not only to meet the needs of students, but to meet the needs of a changing society.

2.2 Combating the Skill Gap

Our schools must combat a growing "skill gap." This gap lies between the skills of our population and the increasing demands of work and life. For individuals and society, this gap is undercutting our quality of life. In the labor market, the gap between job requirements and the skills of our workforce is crippling the competitiveness of our economy.

[6] Eli Ginzberg, "The Mechanization of Work," *Scientific American*, September 1982; and Richard Dorf, *Robotics and Computer-Aided Manufacturing Design*, California Commission on Industrial Innovation, Sacramento, August 1982.

Increasing Skill Requirements

Today's "skill gap" is, in large measure, the result of the transition from an industrial to an information-based society. Tomorrow's jobs will be increasingly in new industries and new occupations. The gradual transformation of the workplace has moved workers from the farm to the factory, and from the factory to the office building. It is now moving them from the office building toward settings connected more by electronic links than walls and hallways.[7]

The California work force has already left the farm. The state remains an agricultural power, yet due to technology-based productivity gains, scarcely three percent of the state's workers hold jobs in this sector. Technological change and international competition have also reduced the proportion of workers in manufacturing—from 26.9 percent in 1960 to 18.9 percent in 1985, to a projected 17.6 percent by 1995. Service and information industries have grown and employment in the service sector is predicted to climb from the 1960 level of 14.5 percent to 27.4 percent in 1995 (**Exhibit 2.2**).

Tomorrow's jobs will require higher skills. One recent study found that... 41 percent of the jobs in 2000 will be in higher skilled occupations, compared to 24 percent in 1984.

Tomorrow's jobs will require higher skills. One recent study estimated that the median amount of education required for employment in 2000 will be 13.5 years compared to 12.8 years in 1984.[8] Some 40 percent of employment in 1984 was in lower skilled occupations compared to a projected 27 percent of the jobs for the year 2000. Conversely, 41 percent of the jobs in 2000 will be in higher skilled occupations, compared to 24 percent in 1984 (**Exhibit 2.3**).

The job skill requirements of the future will not only be higher, they will be different. New occupations are being created with new skill requirements. Further, new technologies and working conditions are shifting the job specific skills of long standing occupations. For example, the occupational category of secretary remains a constant fixture in offices across the nation. But the skill requirements for this occupation are shifting rapidly from typewriters to microcomputers, and from preparation of paper correspondence to facsimile machines and electronic mail.[9]

Finding and keeping a job in the late 20th and early 21st Centuries will be like aiming at a moving target. Workers, and the institutions that provide them with training, must maintain high standards and be up-to-date. More than anything else, tomorrow's workers must have the basic skills that comprise the "ability to learn."

Serious Skill Deficiencies

The skill requirements of life and work are not being matched by skill attainment. Deficiencies of basic and specialized skills in our population are sobering. They threaten our economic well-being and the hope for decent quality of life for millions of California residents.

---

[7] Many social forecasters believe that we are moving away from office settings and toward "telecomputing" and "flexiplace" arrangements linked by computers and advanced telecommunications (Alvin Toffler, ***The Third Wave***, Bantam Books, New York, 1980). While such arrangements may be important models of long-term changes, change in the future is likely to focus on an increasingly sophisticated "electronic office" (Fred Best, "Technology and the Changing World of Work," ***The Futurist***, April 1984, pages 61–66).

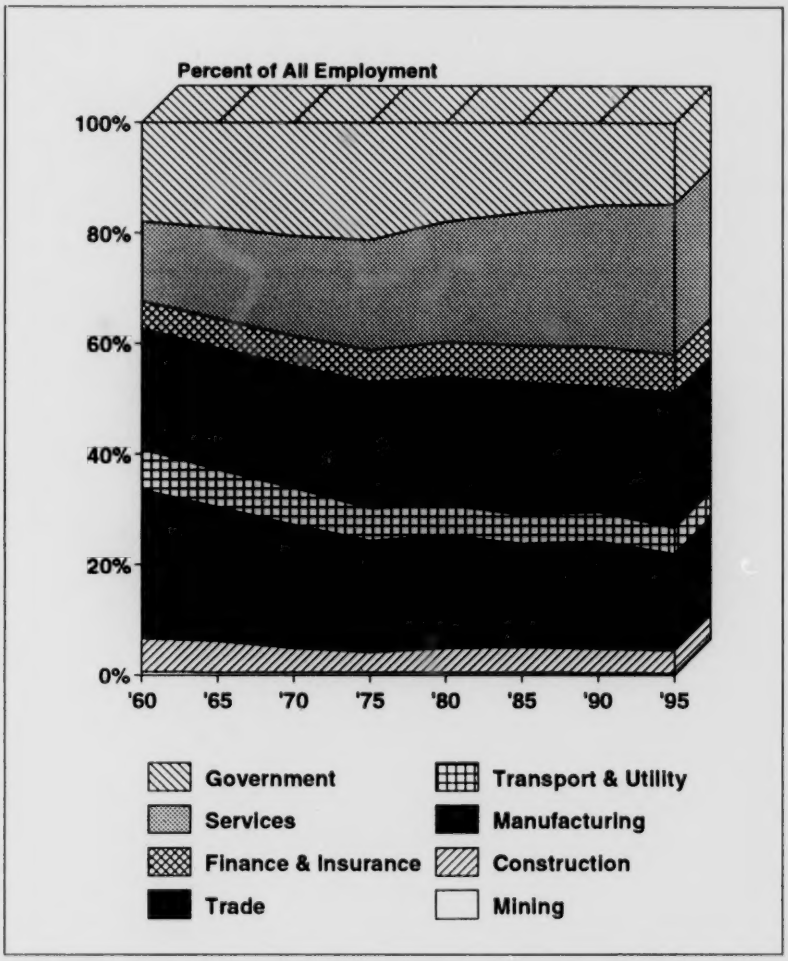
[8] William Johnston and Arnold Packer, ***Workforce 2000: Work and Workers for the 21st Century***, Hudson Institute, Indianapolis, 1987, pages 96–101.

[9] Fred Best and Sherry Bell, ***Labor Demand Forecasting for Los Angeles: Can Existing Systems be Improved?***, Los Angeles Business Labor Council, Los Angeles, September 1983.

Exhibit 2.2
DISTRIBUTION OF CALIFORNIA EMPLOYMENT BY INDUSTRY, 1960–1995

Jobs in California are shifting from manufacturing to service and knowledge work.

The increasing skill requirements of life and work are not being matched by increasing skill attainment.



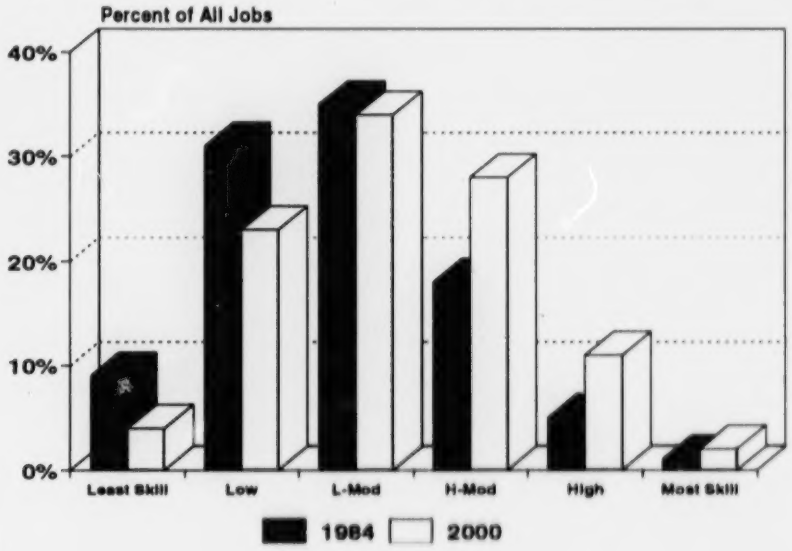
Source: ***California Statistical Abstracts, 1987***, Department of Finance, Sacramento, 1988, Table C-3, page 24; and ***Projections of Employment, 1985–1995***, Employment Data and Research Division, Employment Development Department, Sacramento, 1988.

Note: These projections do not report agricultural and farm occupations, which provide jobs for approximately 3 percent of the work force.

The general trend of educational attainment is upward for the state. In 1977, some 14.8 percent of adults over age 25 had completed no more than 8 years of school. By 1987, this group had declined to 11.9 percent. At the other end of the educational spectrum, some 23.5 percent had completed four years or more of college in 1987 as compared to a lower 19.5 percent in 1977. As a result, average years of schooling has shifted upward slightly from 12.2 to 12.5 years **(Exhibit 2.4)**.

Exhibit 2.3
DISTRIBUTION OF JOBS BY SKILL LEVEL GROUPS, 1984, 2000

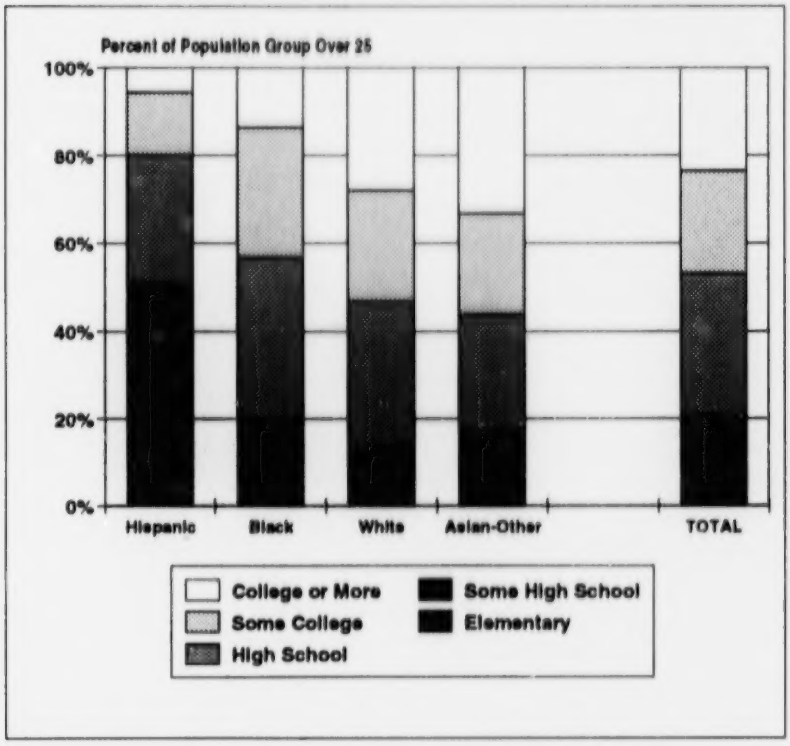
The percentage of jobs requiring higher skills will increase.



Source: ***Workforce 2000: Work and Workers for the 21st Century***, Hudson Institute, Indianapolis, June 1987, pages 98–101.

Exhibit 2.4
LEVELS OF EDUCATIONAL ATTAINMENT, SUBGROUPS AND TOTAL CALIFORNIA POPULATION OVER AGE 25, 1987

About 20 percent of California's adult population has less than a high school education.



Source: Breakdown of March supplement data from Current Population Survey respondents within California. Data provided courtesy of the Population Research Unit, Department of Finance, Sacramento, November 1988.

Despite gains in years of educational achievement, the average level of skill attainment will not match the skill requirements of the future. Some 79 percent of California's workforce of the year 2000 is already in the labor market. This workforce has a median educational attainment of 12.5 years—one year lower than the average 13.5 years of schooling needed for the year 2000.

Further, educational achievement has not been equal among our population. There are significant differences among racial and ethnic groups. Most notably, Hispanics commonly fail to complete junior high school, while other racial-ethic groups averaged a high school education or more (**Exhibit 2.4**). Thus, there are "pockets" of serious skill deficiency within our population.

Skill deficiencies among "pockets" of our population are further underscored by increases in high dropout rates. For California as a whole, students who start ninth grade, but fail to complete twelfth grade have increased from 20 percent in 1970 to over 30 percent by 1990.[10] While some school-age youth who leave school or fail to earn a high school diploma at age 18 return for a GED or other equivalency certification before age 24, most do not.[11]

Of course, years of education do not necessarily equate to learning and skills. Many who have left high school without a diploma have the skills and knowledge expected of a high school graduate.[12] Conversely, many who receive diplomas do not have the skills for which they are certified. We have no reliable data yet on the overall skill attainment of "dropout" and graduating students.

Another indicator of faltering skill attainment comes from studies of illiteracy. A study conducted by SRA Associates estimated that 15 percent or 3.1 million of California's 20 million citizens over age 14 had "significant literacy performance deficiencies" in 1987.[13] These estimates indicate significant variations of illiteracy related to ethnic and racial classification, *(e.g.* 23.9 percent of Hispanics, 26.5 percent of blacks and 28.3 percent of Asians over age 14 were estimated to have literacy deficiencies). While only 9.8 percent of whites had literacy deficiencies, they constituted the largest absolute numbers of illiterate persons. Further, the authors of this study stress that the level of literacy deficiencies is likely to be significantly higher than their reported figures.[14]

Using projected proportions of illiteracy among California's ethnic-racial groups, it is possible to estimate that the proportion of the California population over age 14 that have literacy deficiencies will increase from an estimated 15.1 percent in 1987 to 18.6 percent in 2020. In absolute terms, this would mean that some 4.2 million persons would have literacy deficiencies in the year 2000, and that this group could increase to 5.8 million by 2020 (**Exhibit 2.5**). Once again, these projections based on conservative estimates of current literacy deficiencies in California.

---

[10] ***Educational Needs Assessment For California's Youth***, Pacific Management and Research Associates, Sacramento, May 1990, pages 4-1 to 4-6.

[11] State GED and other records indicate that over the six year period after high school graduation age, only a very small number of students obtain degrees. (***Tomorrow's Workers at Risk***, Youth Subcommittee, California State Job Training Coordinating Council, Sacramento, 1985, pages 10–13).

[12] David Stern, James Catterall, Charlotte Alhadeff, and Maureen Ash, ***"Reducing the High School Dropout Rate in California,"*** California Policy Seminar, Institute of Government Studies, University of California, Berkeley, 1986, pages 26–27.

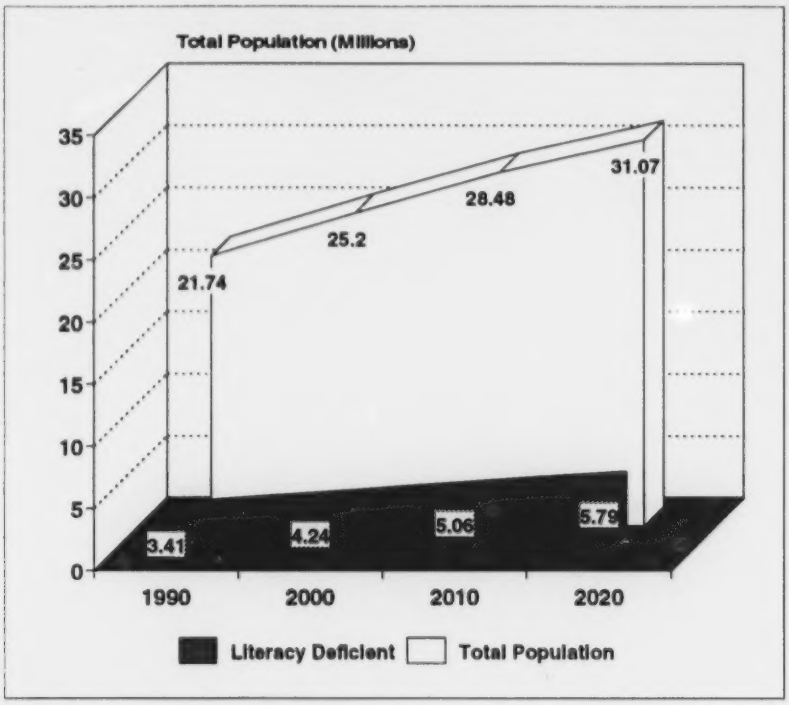
[13] Donald Dixon, Merrill Vargo and Davis Campbell, ***Illiteracy in California: Needs, Services and Prospects***. Paper prepared for the California Department of Education, SRA Associates, July 1987, pages 23–33.

[14] These estimates were based on a 1979 literacy assessment survey. Since that time, the influx of non-English speaking immigrants has grown faster than expected—most notably for Asians and Hispanics. High school dropout rates have also been high. ***Ibid.***, pages 20–22.

BEST COPY AVAILABLE

Exhibit 2.5
ESTIMATED NUMBER OF PERSONS OVER AGE 14 WITH LITERACY DEFICIENCIES COMPARED TO TOTAL CALIFORNIA POPULATION, 1990–2020

It is possible to estimate that the proportion of the over 14 population will increase significantly through 2020.



Source: Projections calculated with census data using estimates of literacy deficiencies provided in Donald Dixon, Merrill Vargo, and Davis Campbell, ***Illiteracy in California: Needs, Services and Prospects***, SRA Associates, 1987.

The key forces causing skill deficiencies show no signs of abating. High school attrition rates indicate a persistence, if not growth, of K–12 drop out rates. Unless a significant turn-around is achieved concerning attrition from high school, and immigration slows significantly, the proportion of those with some measure of language and basic educational deficiencies is likely to grow.

The Labor Shortage Complication

The seriousness of the gap between skill attainment and skill requirements will be intensified by a shortage of young entry-level workers.

Nationally, demographic trends are causing shortages of entry-level labor. The basis of this problem is that the age group following the large "baby boom" generation is smaller. As a result, there will be fewer entry level workers in coming years.

For California, the demographic causes of labor shortages are not as alarming. Coming years will see a clear dip in the number of entry level workers. However, international immigration and high birth rates in the non-white population will contribute to a younger population larger than the national average.

Unfortunately, a less intense shortage of entry-age youth does not translate to an adequate supply of labor. A disproportionate number of California's younger population come from immigrant backgrounds that tend to be deficient

in English and other basic skills required for most jobs. As a result, employers cannot expect to compensate for skill shortages among our existing work force by hiring qualified younger workers.

Today and tomorrow, we must ensure that all youth attain essential skills and the ability to learn throughout life. This means that we must find ways to engage and motivate students from increasingly diverse backgrounds.

2.3 Responding to Ethnic and Cultural Diversity

One of the most profound changes occurring in California is the transformation to a demographically balanced, multi-cultural state. Four great cultures and a multitude of racial groups are converging to produce a society where no culture or race is the majority. Youth with roots linked to Asian, African, Anglo and Hispanic heritages will represent major portions of our school age population. These youth will bring different world views, values and ways of life to our schools. This change will require a different educational atmosphere, and a variety of instructional approaches.

Youth with roots linked to Asian, African, Anglo and Hispanic heritages will represent major portions of our school age population. These youth will bring different world views, values and ways of life to our schools.

This section focuses on how growing racial and ethnic pluralism will create a need for educational options. First, it will provide an overview of how the racial-ethnic profile of California's school age population is changing. Second, it will examine how educational attainment and literacy varies among racial-ethnic groups.

The Rainbow in the Classroom

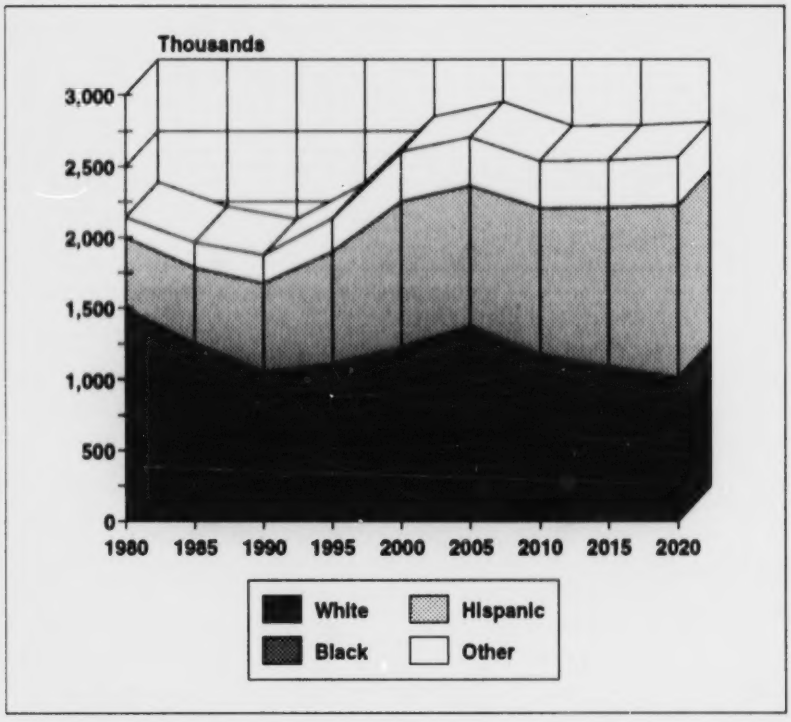
In coming years, California's school-aged population will grow moderately. More importantly, the social and ethnic makeup of our student population will become increasingly diverse.

Projections of California's school-aged population dramatize the trend toward a multi-cultural, multi-ethnic pluralism. In the high school-aged cohort, the white population will decline from over 1,300,000 in 1980 to less than 800,000 in 2020. In relative terms, the proportion of students who are white will decline. In the 1980 census, whites were a clear majority, about 61 percent of the high school age population. By 2020, whites will decline to slightly more than 30 percent. The black population will increase more slowly than the overall rate, 13 percent in 50 years, from about 197,000 to 226,000 (**Exhibit 2.6**).

In contrast, the number of Asians and Hispanics will increase dramatically. Persons of Hispanic origin will become the largest group in California high schools. They comprised 32 percent of the 15–19 year old cohort in 1980 and will grow to 47 percent in 2020. The "others" category, primarily Asians and Pacific Islanders will effectively double from less than 7 percent to over 13 percent. The changes are due to an aging white population with a low birth rate, higher birth rates among ethnic populations, and newly arrived immigrants from Asia and Latin America.

Exhibit 2.6
YOUTH BY RACE, AGES 15–19, 1980–2020

California's school-age population will grow during the 1990s, then level off. More important, it will become more racially and ethnically diverse.



Source: California Department of Finance.

Projections based upon available data greatly underestimate current and future racial and ethnic diversity. These data lump many distinct groups into overly general categories. For example, "black" includes Afro-Americans, West Indian immigrants, Latin Americans, and Africans. "Hispanic" similarly groups people who have little in common beyond outsiders' perception based on racial and cultural stereotypes. "Asians" are yet another composite based on stereotyped perceptions of outsiders. "White" includes everyone of Anglo-European ancestry—from the blondest Scandinavian to the darkest of Mediterranean peoples.

Race and Educational Achievement

Each racial and ethnic group was influenced by unique historical experiences, and consequently each has distinct cultural characteristics. Students from different racial and ethnic backgrounds do not, on average, share equal social and economic advantages. Equally important, they have different values, norms of behavior and expectations about how the world works. These differences clearly impact educational achievement. Without making judgments about whether particular groups value education or not, it is important to recognize that historical experience has shaped social expectations and orientations toward education.

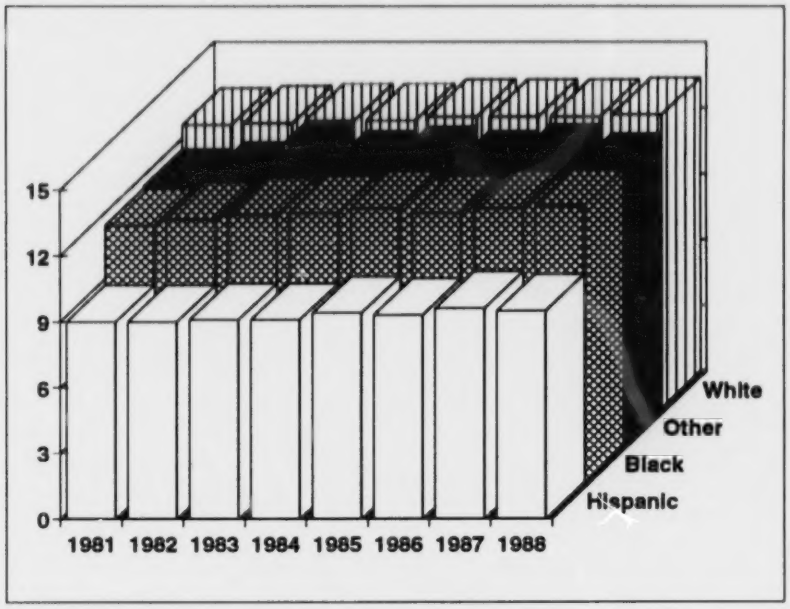
Educational Attainment

Educational attainment varies in significant ways among broad racial-ethnic groups. Hispanics have consistently lower educational levels than all others.

These levels are increasing, but slowly. Hispanics averaged nine years of schooling in 1981 and nine and a half years in 1988. One of the few bright spots in statistics about blacks is that the average number of years in school increased from 11.8 in 1981 to 12.6 in 1988. Today the average black person in California has completed high school. Despite the downward pull exerted by low educational attainment of Native Americans, Pacific Islanders, and recent immigrants from Southeast Asia, "Others" averaged 12.5 years of schooling in 1988. This was only one year less than the white level of 13.4. **(Exhibit 2.7).**

Exhibit 2.7
AVERAGE NUMBER OF SCHOOL YEARS COMPLETED, BY RACIAL-ETHNIC GROUP, 1981-1988

For Hispanics, the average number of years in school increased from 9.0 to 9.5 between 1981 and 1988. Other groups all averaged more than 12 years in 1988.



Source: Current Population Survey; analysis provided by the California State Census Data Center.

Language Proficiency

In 1988–1989, some 14 percent of California's high school students were limited English proficient.

More finely detailed information on the school population can be found in the annual Language Census Report for California Public Schools. This report has identified two groups of Californians for whom English is not the primary language. The first of these are immigrants and their children from non-English speaking countries. Second are the 10 to 25 percent of children born in the United States who speak only Spanish.[15]

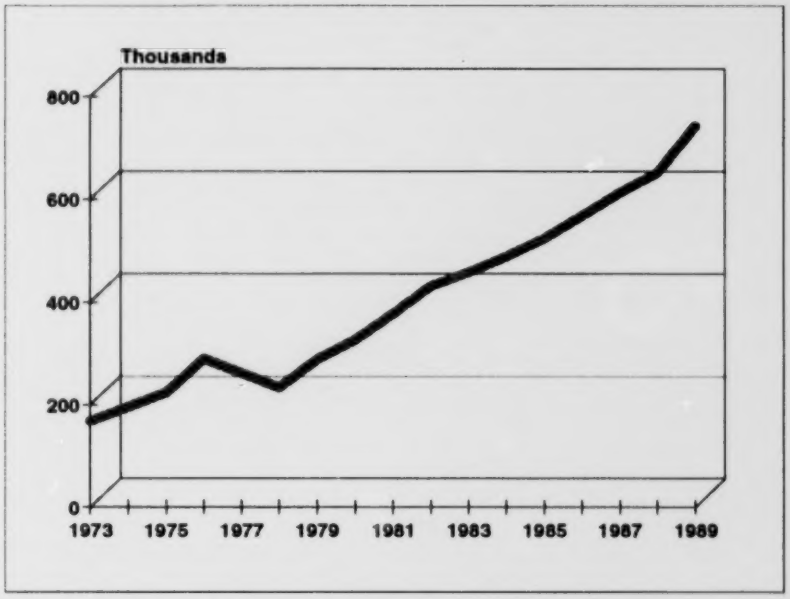
Limited English Proficient (LEP) students constitute one of the fastest growing segments of the population that require specially designed education programs. Twenty-nine percent of *all* California school children report that a language other than English is spoken at home.[16] The number of LEP students has increased steadily by about 7 percent a year from 1985 to 1987. In 1988–1989, some 14 percent of California's high school students were limited English proficient **(Exhibit 2.8).**

[15] ***Language Census Report for California School***, California Department of Education, Sacramento.

[16] Donald Dixon, Merrill Vargo, and Davis Campbell, ***op. cit.***, page 13.

Exhibit 2.8
TRENDS IN LEP STUDENTS IN CALIFORNIA PUBLIC SCHOOLS, 1973–1989

In seventeen years the LEP population increased from less than 200,000 to more than 700,000.



Source: California Department of Education, Language Census, 1989.

More younger students are classified as "limited English proficient," indicating both growth of this group in our schools and increased educational failure due to language barriers. Some 11 percent of students in grades seven through twelve are identified as LEP. About 20 percent of those in kindergarten through sixth grade are LEP. Moreover, in grades 7–12, LEP students are more diverse in the numbers of primary languages represented. While the mother tongue of the largest group of non-English speakers is Spanish, more than forty-five other languages are spoken in California schools.

The number and proportion of LEP students is growing, and this trend is projected to continue. It highlights the diversity of language and cultural groups within our schools. Students arrive in high school from widely varying circumstances. Their previous experience ranges from no school to schools more rigorous than California public high schools. This diversity must be matched with appropriate educational options.

Immigration and Geographic Mobility

Between 1975 and 1985, nearly five million Asian, black and Hispanic people immigrated to the United States.[17] One quarter of all immigrants settled in California, contributing about half of California's growth. Currently, 3.5 million persons, or about 20 percent of the state's population are foreign born.

Immigrants are not evenly distributed geographically. Ninety-five percent live in urban areas. Almost half of the state's total live in Los Angeles, and another 10 percent in the Bay Area. Los Angeles and San Francisco received the majority of Asians and Latin Americans. Rural areas received the majority of migrant farm workers emigrating from Mexico.

[17] *The New York Times*, December 14, 1986.

Although data on race and ethnicity, immigration and linguistic proficiency are limited, they create a telling picture. California educators can expect even greater racial and cultural diversity. The number of Asians, and Hispanics especially, is projected to rise dramatically. Additionally, as immigrants flock to California from other parts of the world, the diversity of first languages other than English and Spanish will have a profound effect on the composition and needs of the student population.

Increasing racial and ethnic diversity will necessitate shifts in current educational options, and perhaps the creation of new programs to enable these students to meet the requirements of the "core curriculum."

2.4 Better Engaging All Students

One of the most striking trends of our time is the growing number of youth who either drop out of school or lack productive educational goals. Major personal and social problems contribute to this situation. These include poor family environments, poverty, criminal activities and records, substance abuse, teenage parenthood, lack of citizenship status and excessive geographic mobility, disabilities and handicaps, and alienation and boredom.[18]

Clearly, these problems are most prevalent among those from disenfranchised and less privileged groups. But they also affect those from middle class backgrounds.

There is a critical need to better engage *all* students. This need is explored from three perspectives:

- The Dropout Problem
- "At-Risk" Youth
- "Mainstream" Dropouts

The problem of "disengaged" students is manifested most vividly by school "dropout" rates, most notably among youth "at risk." However, dropout rates are only the "tip of the iceberg."

The Dropout Problem

Currently, California's dropout rate is estimated by comparing the number of students who enter the ninth grade to the number who graduate four years later. While this dropout measure has many shortcomings,[19] it provides a relatively acceptable measure of student disaffection for the state as a whole.[20]

[18] Fred Best, "Vocational Education at a Crossroads," Pacific Management and Research Associates, Sacramento, 1986.

[19] Attrition therefore includes family mobility, transfer to other public school programs or private schools, etc. As such, the attrition rate does not provide a fully accurate account of dropouts. According to Andrew Hahn's 1987 study, ***Dropouts in America,*** "In California, a public policy organization interviewed some 1,900 recent dropouts and found that, in many instances, their departure was not reflected in the enrollment statistics...The underestimation of the dropout rate on the local level raises serious issues of public accountability. Until a uniform and accurate system of calculating the dropout rate is developed by local school systems, dropout prevention efforts will continue to be directed toward a small number of 'troubled teens' rather than the majority of students." Andrew Hahn and Jacqueline Danzberger with Bernard Lefkowitz. (***Dropouts in America,*** Institute for Educational Leadership, Washington D.C., 1987.)

[20] California's population is growing faster than that of the nation as a whole—in-migration is greater than out-migration. Therefore, distortions resulting from use of the grades 9–12 attrition rate for local areas should not be expected for the state as a whole.

BEST COPY AVAILABLE

Views vary dramatically concerning California's student dropout rate—with estimates ranging from 15 to 57 percent.[21] However, the best available data suggest that for the period between 1976 and 1987 the dropout rate inched up from 31.0 percent for the 1976–1980 period to 32.7 percent for the 1983–1987 period **(Exhibit 2.9)**.[22]

The dropout rate inched up from 31.0 percent for the 1976–1980 period to 32.7 percent for the 1983–1987 period.

Another perspective on the "dropout problem" comes from comparing the size of the school-age population to the number of students enrolled in school. These data indicate the number of students enrolled in secondary schools as a proportion of the total California population aged 15 to 19 years has increased from 60 to 67 percent. These data confirm that well over a third of school-age youth are not enrolled, but raises questions as to whether the "dropout problem" is increasing. In evaluating these data, readers should be aware that the "school-age" population is not exactly parallel to the enrolled population and that migration among schools is likely to have created notable double counting within the enrolled population **(Exhibit 2.10)**.

Although data on the number of dropouts and youth out of school may not be perfect, there is considerable consensus about who drops out and why. ***High School and Beyond***, a study of high school age students, asked dropouts why they quit school.[23] The three most often cited reasons were:

(1) They did not like school.

(2) They earned poor grades.

(3) They were offered jobs and left to go to work.

A longitudinal study conducted by the U.S. Department of Education found at least 41 percent of Latino males drop out of school for economic reasons.[24]

On the whole, California dropouts are more likely to be "youth of color," and to be from low socioeconomic families. Slightly more than 50 percent are male. The attrition rate is higher for minorities than for whites—although in total numbers, more whites drop out. Studies conducted in the mid-1980s by both Los Angeles and San Diego Unified School Districts found the Hispanic dropout rate was 50–70 percent higher, and the black rate 30 percent higher, than the white dropout rate.[25] In 1988 there was still a disparity in the rates among minority groups.[26] Black and Hispanic rates were over 46 percent while the rate for whites is only slightly over 26 percent **(Exhibit 2.11)**.[27]

[21] California Basic Education Data System, California Department of Education, Sacramento, November 1988.

[22] Rates reported on chart reflect the beginning of school year (*i.e.* 1980–81 rate is reported in 1980).

[23] C. Jones, I. Sebring, I. Crawford, B. Spencer and M. Butz, ***High School and Beyond: 1980 Sophomore Cohort First Followup***, Report to National Center for Educational Statistics, National Opinion Response Center, Chicago, 1982.

[24] Luis Duany and Karen Pittman, ***Latino Youth At A Crossroads***, (Washington, D.C., Children's Defense Fund, 1990) p.24.

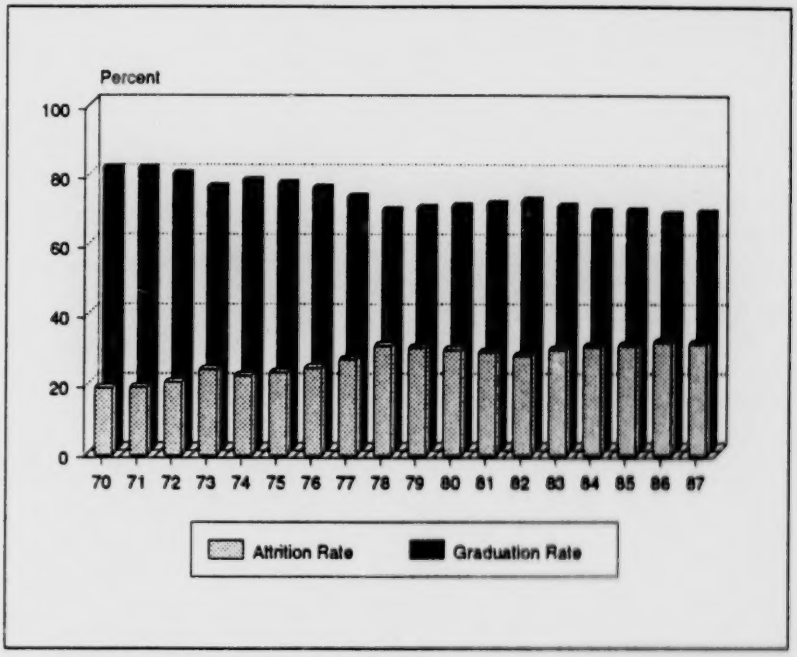
[25] ***Dropping Out, Losing Out: The High Cost for California***, Assembly Office of Research, Sacramento, 1985, page 17.

[26] "Native American" includes American Indians and Alaskan Natives. Neither "white" nor "black" categories includes Hispanics.

[27] California Department of Education, Sacramento 1990.

Exhibit 2.9
CALIFORNIA HIGH SCHOOL GRADUATION RATES AND TRENDS, 1970–1987

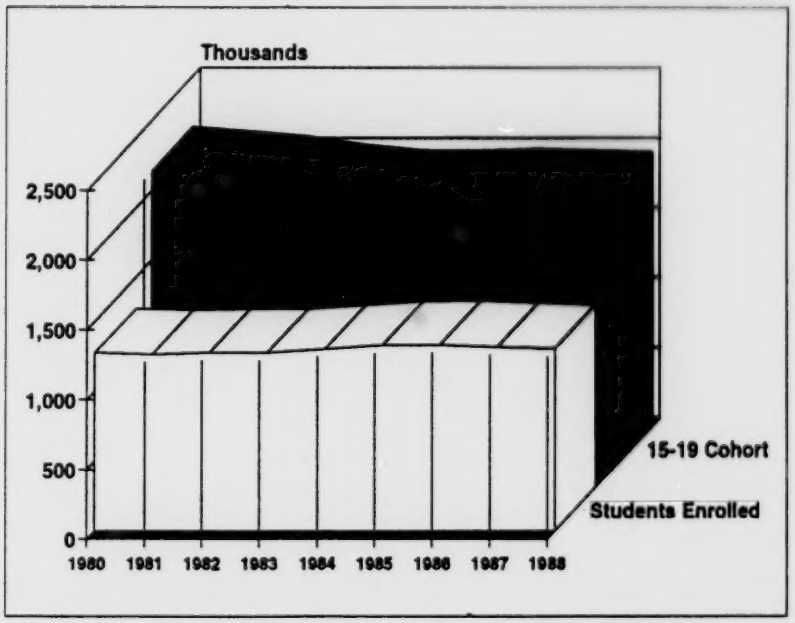
Over the last two decades, the percent of students who start ninth grade and complete twelfth grade has declined steadily.



Source: California Department of Education.

Exhibit 2.10
ENROLLMENT VERSUS AGE 15–19 COHORT

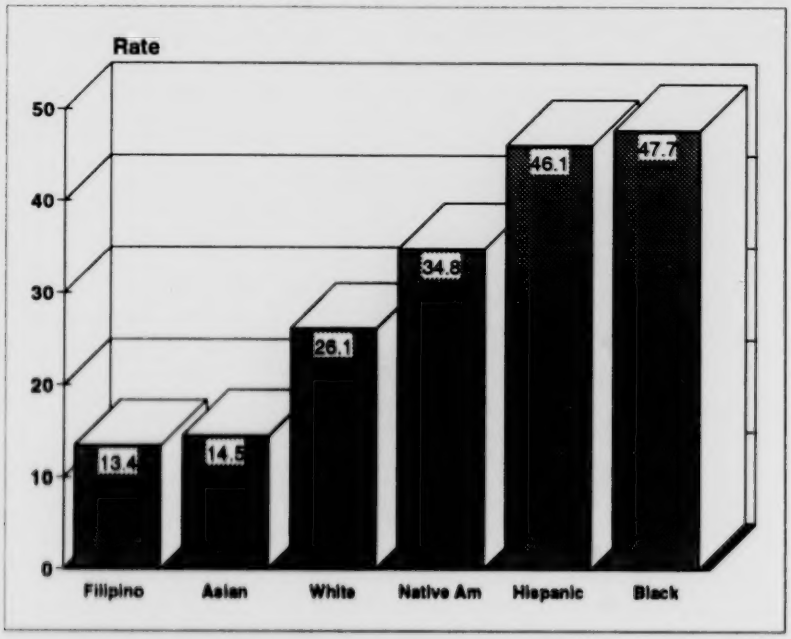
Over one-third of California's school age population is out of school, but the proportion of the total youth population in school may be increasing.



Source: California Department of Finance and California Department of Education.

Exhibit 2.11
ATTRITION RATE BY RACE/ETHNICITY, 1988

Although the number of whites dropping out of school is highest among all groups, Hispanic and black rates are substantially higher than any other group.



Source: California Department of Education.

High attrition rates are not confined to large urban districts, but are found in rural and urban counties as well as in districts of all sizes.

Males drop out slightly more frequently than females, but for different reasons. Males, enticed by the prospect of making money, drop out to go to work. Females drop out because they are pregnant and have limited child care options.[28] One study reports, "California has the second highest teen pregnancy rate in the United States and serves less than 10 percent of eligible females in programs designed to help teen parents earn a diploma."[29]

There is a relationship between work and dropping out. One of the more surprising statistics is that more than half of 15 through 19 year olds are in the labor market. More than a quarter of those employed worked more than half-time. Most teenagers can qualify only for minimum wage jobs—$6,968 annually in 1987. Moreover, few of these jobs offer much chance for skill development or upward mobility. Thus, time at work and away from the classroom will hurt their future life chances in the market (**Exhibit 2.12**).[30]

Some students must work to help support their families. Some assume the responsibility to support disabled, dysfunctional, or poverty stricken parents and younger siblings. Some youth support spouses (or partners) and children, and some young women are raising children on their own. Even when none of the above are the case, today's students are sometimes lured away from school by short-term jobs possibilities in low-skill service industries like fast food restaurants. They need or want purchasing power for a variety of consumer goods ranging from cars to clothes.

[28] *Dropping Out, Losing Out, op. cit.*, page iii.

[29] *Ibid.*, page iv.

[30] James Markey, "The Labor Market Problems of Today's High School Dropouts," *Monthly Labor Review*, June 1988, pages 36–43.

Exhibit 2.12
LABOR FORCE STATUS, AGES 16–19, 1986–88

Fifty-one percent of school-aged youth are either working or looking for work.

Persons Aged 16-19 Years	Total:	Labor Force Status:		
		Employed	Unemployed	Not In Labor Force
Number	4,700,593	1,984,489	412,408	2,303,696
Percentage	100%	42%	9%	49%

Source: California State Census Data Center

Dropping out has personal as well as public consequences. Many "youth-at-risk" ultimately become "adults-at-risk" with basic educational deficiencies. Personal costs resulting from the decision to leave school without a high school diploma include meager chances of employment and ill-preparedness for economic self-sufficiency.[31] Similarly, societal costs include an increasing cost for social welfare systems and a workforce with limited skills.

"At-Risk" Youth

Today, a staggering proportion of our school-age youth confront major barriers to learning.

During the 1980s, the term "at-risk youth" came to the forefront. Concern over rising dropout rates and faltering educational achievement revealed that many youth confront personal and social problems that jeopardize their success in school. Today, a staggering proportion of our school-age youth confront major barriers to learning. These "at-risk" youth include youth from troubled families, youth in poverty, youthful offenders, substance abusers, pregnant and parenting teens, youth from families under stress, undocumented workers, special education pupils, and those with educational skill deficiencies.

Youth in Poverty

Poverty is perhaps the most significant factor associated with the educational attainment of large numbers of California youth. For the poor, life is a struggle to survive. The stresses placed on families by simple economic survival may make education appear to be a luxury. In this milieu, schools must compete with environmental forces—the family, and the street—that drive youth to leave school as soon as possible.

Almost one-quarter of our youth under age 18 live below the poverty level. In 1981 the poverty rate was 17.9 percent. It peaked in 1984 at 25.6 percent, and has hovered at 23.5 percent since 1984.[32] Some 16 percent of California school-aged youth, or 1 million, lived in poverty between 1986 and 1988 (**Exhibit 2.13**).

The realities of poverty produce formidable barriers to educational opportunity. Frequently youth living in poverty are deprived of fundamental needs. Basic housing, adequate nutrition and a sense of physical security are essential elements in the nurturing of children. Youth living in poverty often do not have these "basic" needs met. As many as 25,000 California youth are

[31] *The Sacramento Bee*, April 15, 1990.

[32] Data from the U.S. Bureau of Census, *Current Population Survey*, 1988.

homeless.[33] Even for those children with a place to live, inadequate housing often creates an environment making productive study impossible. Further, poor teens and homeless youth are more likely to spend time looking for food and shelter than preparing a math lesson. Moreover, some of these teenagers must work to help support the family or remain at home to care for siblings while other family members work.[34]

Exhibit 2.13
POVERTY STATUS OF CALIFORNIA YOUTH, AGES 15–19, 1986–88

Nearly one million 15–19 year old California youth live below the poverty level.

Poverty Status:	Number	Percentage
Below Poverty Level	955,041	16%
Above Poverty Level	4,857,095	84%
Total	5,812,136	100%

Source: Current population survey; analysis provided by the California State Census Data Center.

Many studies show that poverty greatly affects whether students benefit from conventional educational.[35] Poverty-stricken youth are more likely to dropout of school, be low achievers or repeat grades, be delinquent and engage in criminal behavior, become unmarried parents, be welfare dependent, earn less if they are employed, and experience greater levels of hopelessness.[36]

Families under stress are a major cause of disenchanted and disaffected young people.

Clearly, poverty is a major stress on family life. It affects the ability of California youth to cope with, let alone benefit from, the current educational system. The magnitude of this problem goes beyond the financial constraint of poverty itself and permeates almost all other "at-risk" youth categories.

Youth from Families Under Stress

Families within today's society are going through many transitions, and many families face formidable difficulties. Families under stress are a major cause of disenchanted and disaffected young people. Drug use, child abuse, and neglect are major factors. These factors are not confined to families living in poverty. It has been estimated that one young person in four comes from a family where at least one parent is an alcoholic or drug abuser. In 1989, more than half a million cases of abused, neglected and exploited children were reported in California, and many more went unreported. In some cases the family situation is so dysfunctional the youth must be removed from the home. In 1987 an estimated 4,000 American children died as a result of child abuse.[37]

---

[33] According to the Status Report, ***Education of Homeless Children and Youth Under the Stewart B. McKinney Homeless Assistance Act***, California Department of Education, 1988, page 1; the California Department of Education has identified 25,000 homeless school age children.

[34] Lauri Olsen, ***Push Out, Step Out: A Report on California's Public School Dropouts***, Open Road Issues Research Project, Citizen's Policy Center, Oakland, California, 1982, page 28.

[35] Columbia University National Center for Children in Poverty, ***The Forgotten Half: Non-College Youth in America***, William T. Grant Foundation Commission on Work, Family and Citizenship, January 1988; Andrew Hahn and Jacqueline Danzberger, ***Dropouts in America: Enough is Known for Action***, Institute for Educational Leadership, March 1987; Lauri Olsen, ***Push Out, Step Out: A Report on California's Public School Dropouts***, Open Road Issues Research Project, Citizen's Policy Center, Oakland, California, 1982.

[36] ***The Sacramento Bee***, April 15, 1990.

[37] Joyce Johnson, ***What Lisa Knew: The Truth and Lies of the Steinberg Case***, G.P. Putnam and Sons, New York, 1990.

Along with our other social institutions, the American family has been subjected to enormous changes in the last half of the 20th Century. Household and workplace technology opened the door for more women to enter the workforce, and birth control methods allowed couples to plan family growth. Expectations and opportunities for women in education and employment increased. Between 1981 and 1989, the percentage of families with two members in the labor force increased from 41.9 to 44.8 percent.[38] Today, two income families are the norm. In 1988, an additional 29.1 percent of families were female single head of household. Fewer than 25 percent of American families are now structured so that only one spouse is employed.

These and other changes have dramatically affected the family and its traditional responsibilities for socializing youth. Time constraints and economic necessity are causing dual earner and single parent families to delegate early socialization to outside agencies. The mass media, especially television, has also assumed new socialization functions. While these changes may not have caused the crisis, they may work against its solution.

Foster youth function at a lower academic level and have lower self-esteem than the general school-age population.

The need is critical for educational options to establish a school climate that supports and emphasizes the development of close interpersonal relationships in which both values clarification and socialization functions can continue. More than ever the basic American social ethics of work and delayed gratification, self-respect and self-esteem, fair play, cooperation, and productive competition must be reinforced in the schools.

Foster Youth

There are an estimated 80,000 school aged foster youth in California. This group clearly constitutes a population "at risk." Most foster youth have been removed from their homes due to abuse, neglect, or abandonment. Foster youth are commonly moved from placement to placement, school to school.[39]

Foster youth function at a lower academic level and have lower self-esteem than the general school-age population. They have unique difficulties that inevitably effect their educational and life chances, especially in the workforce. Being a foster child makes it tougher to develop skills and confidence necessary to become self-sufficient and productive members of society. Educationally, the following problems have been reported for foster youth: 50 percent are retained at least one year, 75 percent are performing below grade level, 50 percent change schools every six months, and most do not have enough credits to graduate by the age of 18 when they are emancipated from foster care. Credits are frequently lost as foster youth are transferred from school to school. Foster youth are often unable to enroll in school due to lack of immunization records.[40]

Youthful Offenders

There are two broad categories of "youth offenders." First are those who have actually "sustained petition" for a legal offense and are either on probation, parole or in correctional institutions. Second are those who are considered deviant because they have committed "status offenses."

---

[38] ***Current Population Survey**, op. cit.* Analysis performed by the California Department of Finance.

[39] Although no statewide figures are available at this time, in three Sacramento County districts (San Juan Unified, City of Sacramento, and Elk Grove Unified), 710 foster children between the ages of 14 and 19 were identified in 1988–90. *(**Overview of the Needs of Foster Youth**,* California Department of Education.)

[40] ***Ibid.***

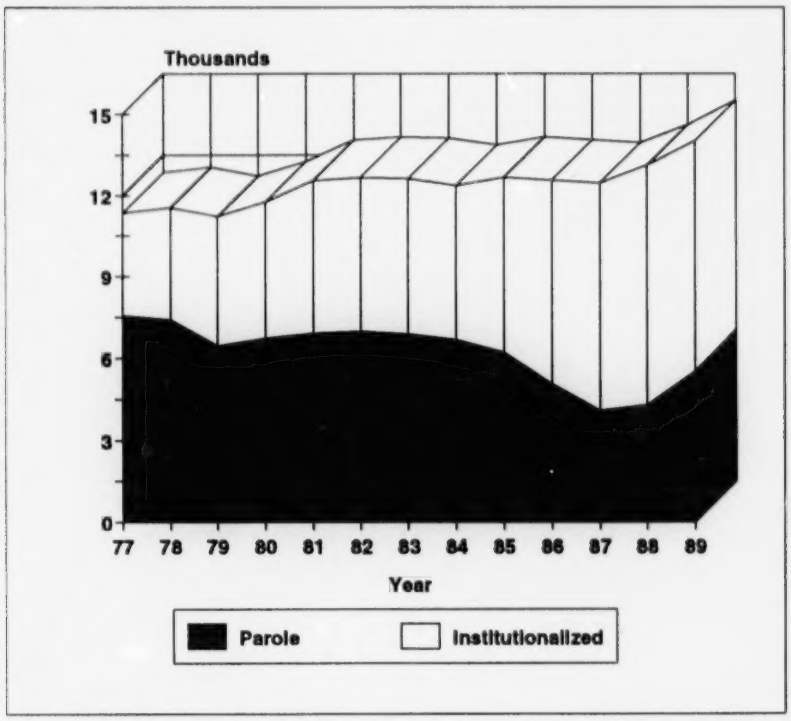
Those in the second group are labeled as "at risk" or placed in special programs because they are truant, pregnant, rebellious, or out of control. In other words, they committed acts that were deemed offenses because of their youthful status—acts that would not bring an adult to the attention of the authorities.[41]

The number of "youth offenders" is growing relative to the school-age youth population. During the nine-year period between 1980 and 1989, the overall population of 15 through 19 year-olds decreased by 11.7 percent. During the same period, there was a 16 percent increase in the number of 15 through 19 year-olds in correctional institutions or on parole (**Exhibit 2.14**). In 1989, there were about 14,000 youth offenders between the ages of 15 and 19 in the California Youth Authority (**CYA**).[42] It is estimated that an equal number are in county and local correctional institutions.

Youthful offenders are 95 percent male. There are three times as many 16 year-olds as 15 year-olds. The numbers double again between 16 and 17. The racial and ethnic breakdown of the population is especially revealing. On December 31, 1989, blacks were 10 percent of the 15–19 year-old cohort but 38 percent of the population on parole or in institutions; 25 percent were white, and 31 percent were Hispanic. Clearly, one's chances of going to prison are much higher if one is black or Hispanic.

Exhibit 2.14
YOUTH OFFENDERS, AGED 15-19, 1977–1989

From 1977 to 1989, the number of offenders in the California Youth Authority rose by over 2,500 while the total population of 15–19 year old youth declined.



Source: California Youth Authority, "A Comparison of the Youth Authority's Institution and Parole Population," February 1990.

41 Information on the first group was obtained from the California Youth Authority. Information on the second group was drawn from the 1990 California Department of Education Report on Community Schools.

42 It should be noted that changing proportions in the parole versus prison populations are due, not so much to changes in young people's behavior, but to changes in administration and laws (California Youth Authority, ***A Comparison Of The Youth Authority's Institution And Parole Population***, February 1990).

Substance Abusers

Substance abuse, via alcohol or drugs, is a serious cause of student failures. While data concerning substance abuse in California has limitations,[43] available information reveals that it is a clear and present danger to both the educational and life success of today's youth.

Substance abuse, via alcohol or drugs, is a serious cause of student failures.

The "National Household Survey on Drug Abuse for 1988" compares drug use of youth aged 12–17 years in the West with the same age youth nationally. The survey's data indicate that use of drugs within California is higher than the national average. Reported use in past year and in the past month also reveal consistently higher rates for Westerners in all categories excluding alcohol (**Exhibit 2.15**).

A 1988 California survey included questions regarding availability, environmental influences, and student attitudes concerning drugs and alcohol.[44] Eleventh graders were asked how many adults they know who use specific substances. The responses follow:

- 80 percent knew some adults using alcohol
- 56 percent knew some adults using marijuana/hashish
- 40 percent knew some adults using cocaine
- 43 percent knew some adults using pills

The responses confirm that drug use is not limited to a youth culture. Many students see substance use as a process that continues throughout life. Further, the above percentages suggest that drug and alcohol use is widespread—it is not limited to one or another region, one age group, or one ethnicity.

Exhibit 2.15
ILLICIT DRUG USE, AGES 12–17, 1988

In all categories but alcohol, substance abuse in the West is greater than the national average.

Type of Substance Abuse	Western States:	National Average:
Any illicit drug	29.6%	24.7%
Marijuana	22.3%	17.4%
Cocaine	6.5%	3.4%
Crack	1.8%	0.9%
Stimulants	5.6%	4.2%
Alcohol	49.3%	50.2%

Source: The National Household Survey on Drug Abuse for 1988, U.S. Department of Health and Human Services, Washington D.C., 1989.

[43] There are a number of limitations in assessing the number of substance abusers among the 15–19 cohort in California. The first difficulty arises from a serious lack of data regarding drug use in California. Studies concerning drugs in California have only recently been undertaken. As a result, analysis must rely heavily on national statistics. "The National Household Survey on Drug Abuse" conducted by the U.S. Department of Health and Human Services is the most useful national survey. Unfortunately, in this study, California is not disaggregated from other states in the "West." Moreover, the survey excludes persons living in group quarters or institutions such as military installations, college dormitories, hotels, hospitals, jails, and the transient population. This is a crucial deficiency since it excludes substantial drug using segments of the population. However, the range of the sample does include people in the 15–19 year old cohort who may have dropped out of school and who are consequently eliminated from other surveys conducted within schools. The population estimates the survey does provide offer a confidence interval of 95 percent.

[44] ***Biennial Survey of Drug and Alcohol Use Among California Students In Grades 7, 9 and 11***, California Attorney General's Office, 1988.

Students dealing with substance abuse problems—particularly those with personal problems—unquestionably need special education and support programs to both stop their own abuse and to prevent its spread to others.[45]

Teenage Pregnancy and Parenthood

Pregnancy and parenthood place many financial, emotional and time pressures on any parent. These pressures are particularly difficult for teenage parents—few have the support systems and emotional maturity to cope with them. An estimated 14 percent of all statewide high school attrition is caused by pregnancy. Pregnancy is the main reason females drop out.[46]

Not all teenagers who become pregnant actually give birth. Not all those who give birth actually keep their babies. Most of those who do are single, and therefore have fewer economic resources than teen couples. Aside from the obvious social and economic problems, remaining in school is difficult unless childcare options are available.

Discrimination against pregnant teens and teen parents is common in middle and high schools. A study conducted by the Equality Center found 70 percent of the school districts in their study discriminate against pregnant students, such as segregation from regular classes, graduation ceremonies, and other activities.[47] Faced with barriers within the schools, the lack of child care, the frequent history of school failure, and the increased responsibilities of parenthood, four out of five teen mothers drop out of school.

This problem is self-perpetuating. Children born into poverty to mothers with low level of educational attainment are already "at-risk" and are likely to require remedial programs themselves. If the teen drops out of school she is at higher risk of a repeat birth, and thus more likely to remain out of school. In California in 1988 21.4 percent of teen births were repeat births, with an alarming number of multiple births (6 sixth births, 39 fifth births, 251 fourth births, 1,746 third births, and 10,572 second births).

The chance of becoming an unmarried teenage mother ranges from about one in a thousand for white, highly educated teens from upper income two parent families, to one in four for black teens with low educational attainment from poor female-headed families.[48] In California, 47 percent of births to unmarried women under age 20 in 1988 were to Hispanics, 33 percent to white non-Hispanics, 15 percent to blacks, and 6 percent to others.

In 1985, California had the highest reported teen pregnancy rate in the nation, 151 per 1,000.[49] In 1989 California had a live birth rate of 59.5 per 1,000 and in 1989 there were 64,935 births to term to for teenage mothers, 21.4 percent repeat births.[50] This represents 10 percent of all teen births in the U.S.[51]

---

[45] ***Drug Use, Drinking, and Smoking: National Survey Results from High School, College and Young Adult Populations***: 1975–1988, page 334.

[46] Claire D. Brindis and Rita J. Jeremy, ***Adolescent Pregnancy and Parenting In California: A Strategy Plan For Action,*** Center for Population and Reproductive Health Policy, UCSF, 1988.

[47] Title IX, however, gives pregnant and parenting teens the right to remain in their school of attendance.

[48] Allan F. Abramse, Peter Morrison, and Linda Waite, "Beyond Stereotypes: Who Becomes a Teenage Mother?" Rand Corporation, 1988.

[49] ***Teen Pregnancy: A Blueprint for Comprehensive California School-Based Pregnancy Prevention Programs, Programs for Pregnant and Parenting Students,*** California Department of Education, Sacramento, 1990.

[50] Department of Health Services, 1989. Figure provided by Teenage Pregnancy and Parenting Programs Coordinator.

[51] National Center for Health Statistics.

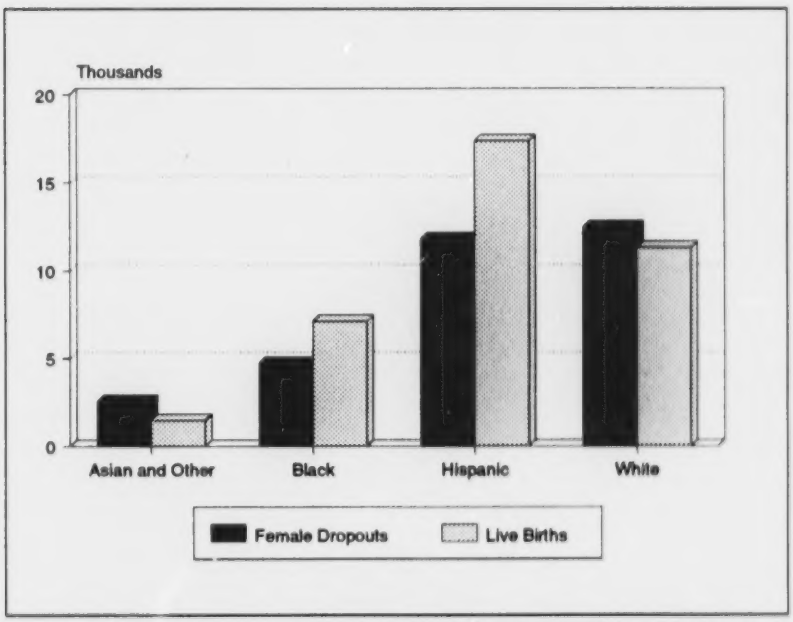
BEST COPY AVAILABLE

Over the last two decades, the marital status of teenage mothers has reversed.[52] Before 1980, the number of births to married teenagers exceeded the number of births to unmarried teenagers. Since 1980, births to unmarried teenagers have outnumbered those to married teenagers; moreover, the number of births to unmarried teenagers is rising rapidly.

There appears to be a high relationship between teen pregnancy and dropping out among female students. Specifically, in 1988-89 the number of dropouts among female students in grades 10–12 was almost equal to the number of births to female youth under age 19 (**Exhibit 2.16**). While this data does not demonstrate a direct correlation between teen parenting and dropping out, it suggests that teen parenting is a major factor contributing to the female dropout rate.[53]

Exhibit 2.16
FEMALE DROPOUTS COMPARED TO TEEN PARENTS, GRADES 10–12, LIVE BIRTHS, 1988-89.

The number of female dropouts in California approximates the number of live births to females under age 19. While this does not demonstrate a direct correlation between female dropouts and teenage parenting, it suggests a significant relationship.



Source: ***Teen Pregnancy: A Blueprint for Comprehensive California School-Based Pregnancy Prevention Programs/Programs for Pregnant and Parenting Students,*** California Department of Education, Sacramento, 1990, page 9.

With regard to teen pregnancy, six major issues confront the school system, society in general, and educational options programs in particular:

- Continued school attendance and graduation require parenting teenagers be provided adequate child care and transportation. For most young mothers this means a program providing services for a period long enough for mothers to earn their diplomas.
- Job and skill training contributing to the economic self-sufficiency of teen parents needs to be provided.

[52] For statistical purposes, in marital status is estimated by an inferential method. For details of the inferential method, see Beth Berkov, "An Evaluation of California's Inferred Birth Statistics for Unmarried Women," ***Vital and Health Statistics***, National Center For Health Statistics, Series 2, No. 97, 1985.

[53] ***Teenage Pregnancy: A Blueprint, op. cit.,*** pages 9-10.

- An increase in the number of parenting teens in the 15 and below age group will be a challenge since they will need to be served for a longer period of time. Most programs are currently geared to the 16–18 year old group.

- Teen parents and the children of these youths are at a higher risk of being educationally disadvantaged, and therefore, have more limited life options. Three examples illustrate this point: (1) 11–17 percent of low birth-weight babies are born to teen mothers and special education services are required 2.5 times more frequently by low birth weight babies than by those of normal birth weight;[54] (2) children of parents 17 years and younger have lower cognitive scores than children born of parents 18 years and older;[55] and (3) the children of teenage mothers have a greater chance of living in a disrupted home while in high school, and are at high risk of repeating their parents' pattern of early parenthood.[56]

Migrant students are twice as likely to become high school dropouts as geographically stable students.

- Teenage pregnancy is not only a school problem. It is also a social problem costly to taxpayers. Educational programs have a major role to play in moderating those costs. In the language of Chapter 1613/88 (*Assembly Bill 3590, Clute*):

  > Teen pregnancy is the point of entry into the system of public social services, and the point of exit from the school system, and the greatest single cause of school dropout for female pupils. Continued school enrollment is a deterrent to second pregnancies. Completion of school and acquisition of marketable skills also prevent long-term and costly dependency on the system of public social services.

- Barriers to educational opportunity keep many pregnant and parenting teens out of the public educational system for good thus limiting the effectiveness of public school. In other words, the educational system is itself at risk: its functions are not being accomplished, thereby creating a core of disaffected people with little stake in maintaining our school systems.

Pregnancy and parenting among teenagers is clearly a major barrier to success in school. This problem impacts young women more than men. However, pregnancy and parenting requires special support and programs for impacted youth regardless of their sex.

Children of Migrant Farm Workers

Because of its enormous agricultural economy, California is home to a large work force of migratory farm laborers. The children of these laborers are at great risk for dropping out.[57] Eighty percent are "minorities," many do not have adequate English skills for classroom participation, and their families have low economic status. Also, it is often necessary for these youth to work to help support the family.

The Charles Stewart Mott Foundation's national study of youth-at-risk concluded that migrant youth are more at-risk than any other identifiable group.

---

[54] S. Broman, "Long-Term Development of Children Born to Teenagers," in ***Teenage Parents and Their Offspring***, (New York, Grune and Stratton, 1981).

[55] W. Baldwin, ***Adolescent Pregnancy and Childbearing—Rates, Trends, and Research Findings***, National Institute of Health, Maryland, 1981.

[56] ***Ibid.***

[57] ***The California Report***, "A Study of the Graduation Rate Among Region II Migrant Child Education High School Students 1985–1989."

The study stressed the triple disadvantage of poverty, constant mobility, and, for most, poor English skills. It came to the conclusion that migrant students are twice as likely to become high school dropouts as geographically stable students.

The Migrant Education Offices in California reported that for the 1989–90 school year, the total number of migrant students (including eligible 3 and 4 year-olds as well as 18–21 year old non-graduates) was 195,000. Male and female students were equally represented. According to 1987 profiles: 87 percent were Hispanic; 5 percent Asian or Pacific Islander; 1 percent were white-not Hispanic; less than 1 percent each were Native American and black-not Hispanic; and 6 percent were "not reported." To be counted in California, one must first be classified as an eligible migrant. This means children must move with their families for the purposes of agricultural work and must cross district boundaries. They may move from another state or move within the state as long as a boundary has been crossed. Ninety-five percent of youth classified as migrants were in school.

Statewide data on migrant students is limited or non-existent. For example, if a student withdraws from school in Fresno, moves with her or his family to Tucson and enrolls in school, she or he may be counted in Fresno as a dropout rather than a transfer. If she or he attended three months in Fresno and attends another three months in Solano county, she may be counted twice. Due to the lack of reliability in the data, estimated enrollment and dropout rates for migrants vary widely. Dropout figures range from a low of 37 percent to a high of 84 percent.

Mobility also makes it difficult for schools to help Migrant Education students overcome educational barriers. The student may not attend any school long enough for an educational intervention to be effective.

Special Education Pupils

Disabled or "differently-abled" students have historically faced lack of understanding, prejudice and physical barriers. Disabled students frequently do not fit into the "regular" program. This has worked to lower their level of educational attainment. According to the Department of Rehabilitation, disabled persons between the ages of 16 and 64 have a significantly lower number of total years of education than the non-disabled. Of California residents who have completed only 8 years of schooling, 27 percent are disabled. Moreover, the higher the grade the fewer disabled students attend, thus only 5.7 percent of the population with four or more years of college are disabled. With increasing levels of education, there are smaller percentages of disabled students. Although there are many possible explanations for this phenomenon, it suggests that many disabled students abandon the system because the facilities provided by the state do not sufficiently address their needs.

At the end of 1989, the special education pupil count in California was over 80,000 for ages 15 through 19 years. Special education students make up 4 percent of the 15–19 cohort. Of this group, only 2,330 attend nonpublic schools. This means the remaining 78,000 special education students rely upon public resources for their educational needs. The majority of the special education population have specific learning disabilities (71 percent). Other disabilities are deafness, mixed or dominant autism, visual handicaps, hearing impairments, and deaf-blindness. These conditions comprise only 6 percent of the special education in California.

Recently, there has been a growth in awareness of the needs of the learning disabled. Many barriers are being overcome. Legislated guarantees of education, employment, and public accommodation for the disabled are being made. The new legislation will certainly affect California schools.[58] Simultaneous with the growth of consciousness, technological developments and medical breakthroughs have made life easier for people with handicaps. Computers help those with hearing, speech, and visual impairments lead productive lives, and advancements in prosthetics and motorized wheelchairs have aided those with mobility problems. These developments promise fundamental changes in the way disabled students are treated in the education system.

"Mainstream" Dropouts

Dropouts also come from the families of blue collar workers, white collar workers, and traditional middle class neighborhoods.

Most discussions about the dropout problem emphasize students confronting problems linked to race, poverty and other social inequities. Research on dropouts shows that many "mainstream" students are indeed "at-risk." This section addresses the needs of youth from "non-minority" and middle class families.

In California's high school classes of the 1980s, roughly one quarter of entering white 10th graders did not receive a diploma.[59] As the state's largest ethnic group, whites also represent the largest absolute number of dropouts.

Dropouts also come from the families of blue collar workers, white collar workers, and traditional middle class neighborhoods. Since 8 percent of whites live below the poverty line, California's white dropout rate of 25 percent must include youth other than those from low income families.[60]

Research suggests three main reasons for non-minority and suburban dropouts. First, some students are alienated by the structure of the secondary school; they do not "bond" to the school and dislike it enough to leave. Second, students may experience overwhelming personal problems relating to family life in adolescence. Third, employment is an attractive alternative to school for some students. Teen pregnancy is also a major contributing factor for white female dropouts.

Students who learn at a quicker pace or are academically advanced often experience boredom and frustration. These "bright-but-bored" students may go to a community college or create personal educational programs. For others, their boredom in school may spell the end of their formal education.[61] This is supported by data showing that dropouts as a group have higher cognitive capa-

[58] *The New York Times*, March 18, 1990.

[59] In the statewide Class of 1984, 25 percent of white students did not receive a diploma; in the Class of 1987, 27 percent of white students did not get a diploma; in the Class of 1988, 26 percent did not graduate (***Unfinished Business***, Achievement Council, Oakland, California, 1988, page 14; and information from Demographics Unit, California Department of Education for the Class of 1988).

[60] For the Class of 1988, largely suburban counties such as Orange, San Mateo and El Dorado have county-wide attrition rates near the statewide average for white students: 24, 25 and 27 percent, respectively. These figures mean that 24 percent of entering 10th graders in Orange County did not receive a high school diploma in the Class of 1988 (California Department of Education, "Attrition and Dropout Rates in California Public School Districts by County, 1984 and 1988," July 26, 1989. Attachment to press release).

[61] The Citizens Policy Center research consisted of in-depth interviews of open-ended questions with 432 youths who had left school, 300 students in school, and 432 parents of dropouts. The interviews lasted from 54 minutes to an hour and 15 minutes. The findings of these interviews were supplemented by data from 1,000 questionnaires administered to youth. The final sample was 54 percent female and 46 percent male; 24 percent Hispanic, 30 percent black, 4 percent Asian, and 42 percent white (Lauri Olsen, ***Push Out, Step Out: A Report on California's Public Dropouts***, *op. cit.* page 16).

bilities than high school graduates who did not enroll in college. This is true for white, black and Hispanic dropouts.[62]

Many dropouts felt socially isolated—not a part of the school. This included students considered by peers as "too smart" or a "bookworm." These students' inability to conform to the social "norm" was a significant factor in their decision to leave.

While factors such as substance abuse and family problems may impact dropout rates among white and middle class students, such factors as student alienation, adolescent temperament and social involvement may be particularly important when examining "mainstream" dropouts.

The quality of teaching affects students. Many youth who had seriously considered dropping out did not because of a particularly good or interested teacher.[63] Unfortunately, other interviewed students frequently labeled instruction as "terrible," "frustrating," "boring," and "irrelevant." Most dropouts felt their teachers were either boring or not interested in teaching.

Many students are in multiple risk groups.

In many cases, the traditional school structure seems to work against the needs of the youth it is supposed to serve. Teenagers need to experiment, explore new situations and establish themselves as risk-taking, independent people. Schools often ignore the personal development needs of teenagers. This issue is, in fact, responsible for many dropouts' decision to leave.[64]

Many dropouts have believed that no matter what lay in store for them, dropping out represented a move out of a situation they knew was not working. One study underscores the intensely positive feeling these individuals had in leaving school and their sense of "getting on with their lives." This may be in direct response to their perception, and the nature, of the high school environment and experience as enclosed, isolated, and age-segregated.[65]

The impact of student alienation, adolescent temperament, and adolescent social involvement has the potential of placing all students "at-risk," including those who are middle class, bright or gifted.

This section has broken down the student population into analytically distinct components. This masks the reality that many students are in multiple risk groups. They may be minority, gifted and talented, and extremely alienated, or low income and from an abusive family situation and engaged in substance abuse. The possible combinations are endless. Recognition of this diversity challenges our school system not only to provide a variety of programs, but to combine the resources of these programs to meet individual needs.

---

[62] David Stern, James Catterall, Charlotte Alhadeff and Maureen Ash, "Reducing the High School Dropout Rate in California: Why We Should and How We May," California Policy Seminar, Institute of Governmental Studies, University of California, Berkeley, 1986, pages 22–25.

[63] Lauri Olsen, *op. cit.*, page 14.

[64] *Ibid.*, page 17.

[65] *Ibid.*, page 18.

2.5 Making Learning a Lifelong Commitment

There are growing signs that we should increase the flexibility with which we schedule education over our lifetimes.

A number of factors suggest that today's prevailing pattern of a four-year high school education with graduation at age 18 no longer meets the needs of our times.

High school, and most other educational institutions, are organized around the principle that an individual should complete his or her formal schooling during youth or early adulthood. This lockstep progression through school has contributed to the prevalence of a "linear lifeplan," in which most of us progress step-by-step from education in youth, to work in midlife, to leisure in old age. This "linear lifeplan" has been intensified by increases in longevity, retirement policies encouraging even earlier departures from work, and expansion of educational opportunities during youth. Further, the expansion of school years during youth and years for retirement in the later part of life have compressed the number of years given to work into a smaller and smaller portion of the lifespan.[66] Specifically, the proportion of the total life span given to work in the mid-years by the average male has declined from 62.3 to 55.4 percent between 1940 and 1980 **(Exhibit 2.17)**.

While long-established trends are generally the best predictor of the future, they can also point to a breaking point. Many of the economic and social forces that fostered the prevailing lockstep progression from education, to work, to retirement have changed.[67] New social forces such as changing family life, new values toward work and leisure, the need for recurrent education throughout life, and the mounting economic costs of today's retirement policies may push individuals and society into new life patterns that more flexibly mix education, work and leisure throughout all stages of life.[68]

A number of factors suggest that today's prevailing pattern of a four-year high school education with graduation at age 18 no longer meets the needs of our times:

- The skill requirements of life and work are changing, thereby increasing the need for recurrent training and education throughout life.
- The educational commitment needed to meet the skill requirements of life and work are increasing, thereby making it infeasible for many youth to complete formal schooling in a consecutive stretch of time.
- Many youth gain more from their education by mixing school, work and other activities, a pattern which can require more than four years for a complete high school education.
- The prevailing pattern of ending high school at age 18 pushes schools to "socially" graduate students who have *not* attained adequate skills and knowledge.
- The norm of consecutive years of high school and graduation at age 18 may impose an artificial label of failure where students

[66] The data on lifetime distribution of education, work and leisure has been restricted to males because the transitional status of women between employment and housekeeping does not allow development of meaningful summary statistics for both sexes.

[67] Fred Best and Barry Stern, "Education, Work and Leisure: Must They Come In That Order?," ***Monthly Labor Review***, July 1978.

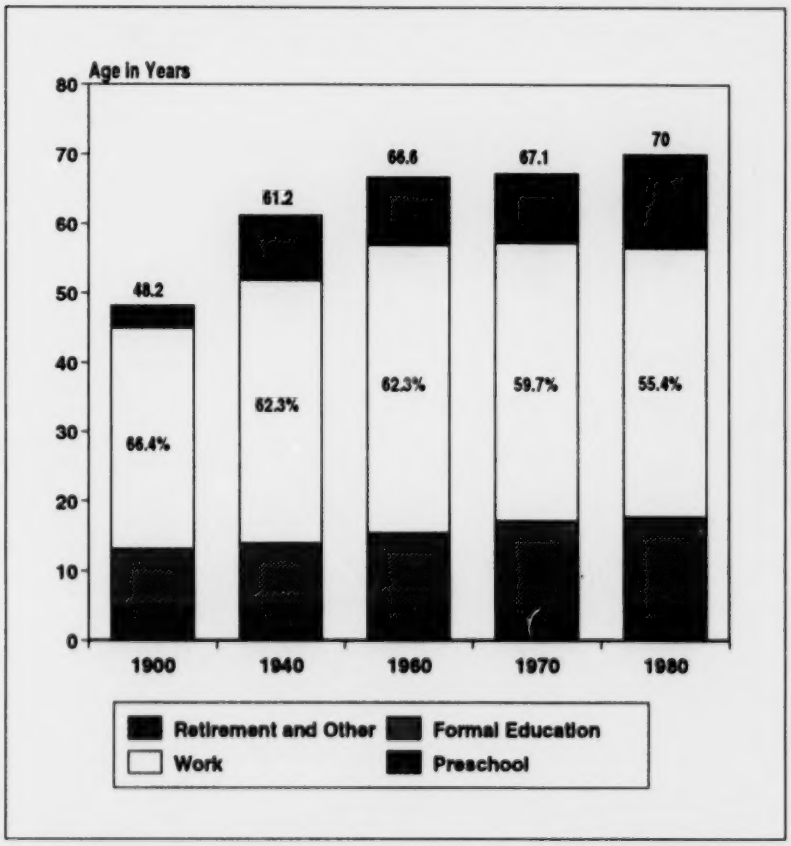
[68] Fred Best, ***Flexible Life Scheduling: Breaking the Education-Work-Retirement Lockstep***, Praeger Publishers, New York, 1981.

with different temperaments and motivation fail to learn on this timetable.

- While teaching students how to keep schedules and meet deadlines remains important, the emphasis for school, life and work has shifted to real achievement and performance—a change pushing schools to stress learning achievement rather than rigid schedules of learning.
- Technology and other innovations allow us to customize education to individuals and manage diverse learning schedules that would have been organizationally impossible in the past.

Exhibit 2.17
LIFETIME DISTRIBUTION OF EDUCATION, WORK AND RETIREMENT/ OTHER FOR U.S. MALES, 1900–1980

The percentage of overall lifetimes given to work has been compressed into an ever smaller part of mid-life.



Sources: Worklife expectancy figures (number of years in labor force) obtained from Howard N. Fullerton and James J. Byrne, "Length of Working Life for Men and Women, 1970," ***Monthly Labor Review***, February 1976, pages 31–33; Howard N. Fullerton, "A table of expected working life for men, 1968," ***Monthly Labor Review***, June 1971, pages 49–54 and ***Statistical Abstracts of the United States, 1988***, Bureau of the Census, 1988, Table 606, page 364. Life expectancy figures (at birth) obtained from ***Statistical Abstracts of the United States***, 1974 (Washington, Bureau of the Census, 1975), page 55, and ***Statistical Abstracts of the United States, 1988, Bureau of the Census, 1988***, Table 107, page 71. School years (completed for persons over 25) obtained from ***Digest of Educational Statistics for 1975*** (Washington, U.S. Department of Health, Education, and Welfare, Office of Education, 1975), pages 14–15 and ***Statistical Abstracts of the United States, 1985***, Bureau of the Census, 1985, Table 216, page 136.

Note: This chart presents data for men only because the transitional work patterns for women make similar data misleading for women.

BEST COPY AVAILABLE

Changes in our world, and a better understanding of different learning styles among an increasingly diverse student population, indicate that a key dimension of educational options should be choice in the timing of education during youth and throughout life. For the high school student, education should be viewed as something that does not end at age 18, nor should high school education be artificially prolonged for students who have satisfied "core" learning goals. Education and learning must be organized and viewed as something that continues throughout life.

2.6 Key Findings

The future of high schools and educational options will be forged by a variety of emerging and continuing trends and forces. In broad brush strokes, these forces can be grouped into six key categories:

Who we are, what we do, and how we think are changing dramatically. These changes compel us to reexamine the ways we have organized our schools, and ask whether the schools of today can meet the needs of tomorrow.

- **Adjusting Schools to the Information Era.** California is in the middle of a transformation from an industrial society typified by manufacturing and mass standardization to an "information society" typified by services, computers, electronic communications, and increasing diversity. This is causing an incongruity between the world youth live in and the schools they attend. For example, standardized classroom instruction via lecture may be inefficient and boring to students who interactively gain rapid access to information and resources in other areas of their lives. Better results might be gained by freeing teachers and students for discussions and one-to-one interaction by using instructional technology to inform and drill students.

- **Need to Combat the Skill Gap.** The skills and knowledge currently attained by major pockets of our school-age and adult populations are not adequate to the demands of work and life in the future. This undercuts the competitiveness of our economy and the quality of our lives. Schools must find ways to ensure that all students attain the basic skills required to learn throughout their lives, and to improve their skill and knowledge achievement beyond basic skills.

- **Responding to Ethnic and Cultural Diversity.** California is well on its way to ethnic-racial pluralism in which no group has "majority" status. This diversity creates a myriad of personal values, cultures and world views of how society works. Schools must find ways to assimilate and integrate a growing multitude of cultural combinations, and build a common ground of understanding while also making both the content and process of education relevant to individuals with diverse backgrounds and viewpoints.

- **Need to Better Engage All Students.** Better ways are needed to assist every individual find the abilities and interests that allow him or her to make the most of themselves and contribute their best to others. Every youth has special interests and abilities that represents not only their personal strengths, but links of relevance that makes other educational activities worthwhile. Some students learn more intellectually and logically and others more holistically and affectively. Educational options are necessary to provide individuals with a range of approaches for better matching the instructional process to individual modes of learning.

- **High School Programs Must be Pertinent to the Needs of "At-Risk" Students.** One of the most striking trends of our time is the number of youth that are dropping out of school before completing a high school diploma, and the number remaining in school that are falling short of educational goals necessary to lead satisfying and productive lives. A major cause of this crisis in educational attainment is that large portions of our youth confront major personal and social problems. Some of these include poor family environment, poverty, criminal activity and records, substance abuse, teenage parenthood, lack of citizenship status and excessive geographic mobility, and disabilities and handicaps. These "at-risk" youth need educational options which provide support to overcome specific problems, opportunities for remedial learning if needed, and a fluid linkage to the "mainstream" population.

- **Need to Make Learning a Lifelong Commitment.** The prevailing pattern of scheduling high school education within a four-year period may not be appropriate currently or in the future. Individuals have different timetables for maturation and learning. Many students must work while attending school and need to spread their schooling over a longer period. Lifelong learning is necessary to keep pace with our "information society." Restraining graduation to age 18 puts emphasis on "social promotion" rather than skill achievement.

California leads the nation in several key trends that will change education. The state population and other technical-economic foundations are undergoing major transformations. Who we are, what we do, and how we think are changing dramatically. We must reexamine the ways we have organized our schools, and ask whether the schools of today can meet the needs of tomorrow.

CHAPTER

3 Today's Programs and Their Performance

Today's high school is not a monolith. In reality, it is a cluster of options serving a variety of individual needs and social groups.

It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness..."

These classic words, from Charles Dickens' *A Tale Of Two Cities*, might well describe current debate about American education. Depending on with whom you talk, and when, descriptions of our school system range from hopeless malaise to unbridled hope.

Aside from the volatile range of hope and dread, Dickens' words express the symptoms of an underlying reality that is particularly relevant today. *A Tale Of Two Cities*, is set against the French Revolution of 1789 and the introduction of democracy to Europe. However, this revolution was more than political. It was a manifestation of fundamental social changes, a transition from agrarian to industrial society, the emergence of the bourgeoisie, the rise of science, and the increased flow of information via the printed page. A new social order was being created. There was hope, there was fear, and there was great confusion.

Our times are different. Our hopes, fears and confusion are different. But, like the times described in Dickens' novel, we are rushing headlong through an equally dynamic and fundamental transformation. The emergence of the "information era" requires that we question and change many of our most basic assumptions. Our schools, and how we educate our youth, are no exception. Regardless of our perspective, we all feel confusion about the future of our educational system. Our worst fears and most sobering statistics are contrasted with promising ideas and reports of educational success. We are clearly at a crossroads between the past and an uncertain future.

To move successfully into the future, we must first understand where we are, how schools became what they are today, and the nature of forces pushing us to change. This chapter addresses these questions by assessing the role of educational options within the larger context of the high school and other educational programs serving youth. The chapter covers five topics:

(1) Background on California's School System
(2) Programs Outside the Public School Districts
(3) Comprehensive High School
(4) Alternative Education and Other Options
(5) Key Findings

This chapter also includes a special insert, reviewing trends and prospects in the application of instructional technology.

In order to provide an overview of all educational resources available to California's youth, programs have been grouped into three categories:

- Educational programs "outside" the public school system not administered by the California Department of Education (CDE)
- Educational programs and options within public high schools administered by CDE
- Public educational options programs that have been established parallel to the mainstream school system.

These three categories can be viewed as increasingly specific, concentric circles (**Exhibit 3.1**).

Today's programs developed in response to social needs at a particular moment in history. Like most institutions, they persisted subject to changing circumstances. From time to time new institutions were added to the mix. The result is less an education system than a hodgepodge of competing institutions. Although there are pockets of educational programs that are somewhat integrated, it is not clear that these programs function as a "system."[1] As a whole, education in California is unplanned, poorly managed, and suffering from a lack of uniform data collection, standards of accountability, and control.

3.1 Background on California's School System

There is, in reality, no "traditional" or "mainstream" school program attended by most students.

California's educational system is a collection of options. There is, in reality, no "traditional" or "mainstream" school program attended by most students. Rather, today's elementary and secondary schools are a collection of programs designed to meet special goals and address the needs of multiple student populations. Further this school "system" is surrounded by numerous programs beyond the jurisdiction of school districts. All these programs comprise a system of options for today's students, but they also represent a patchwork of alternatives that are not clearly integrated or fully accessible.

A Brief History of the High School

Traditional models of the comprehensive public high schools developed as part of the rapid industrialization that characterized American history from 1880 through the opening decades of the 20th Century.[2]

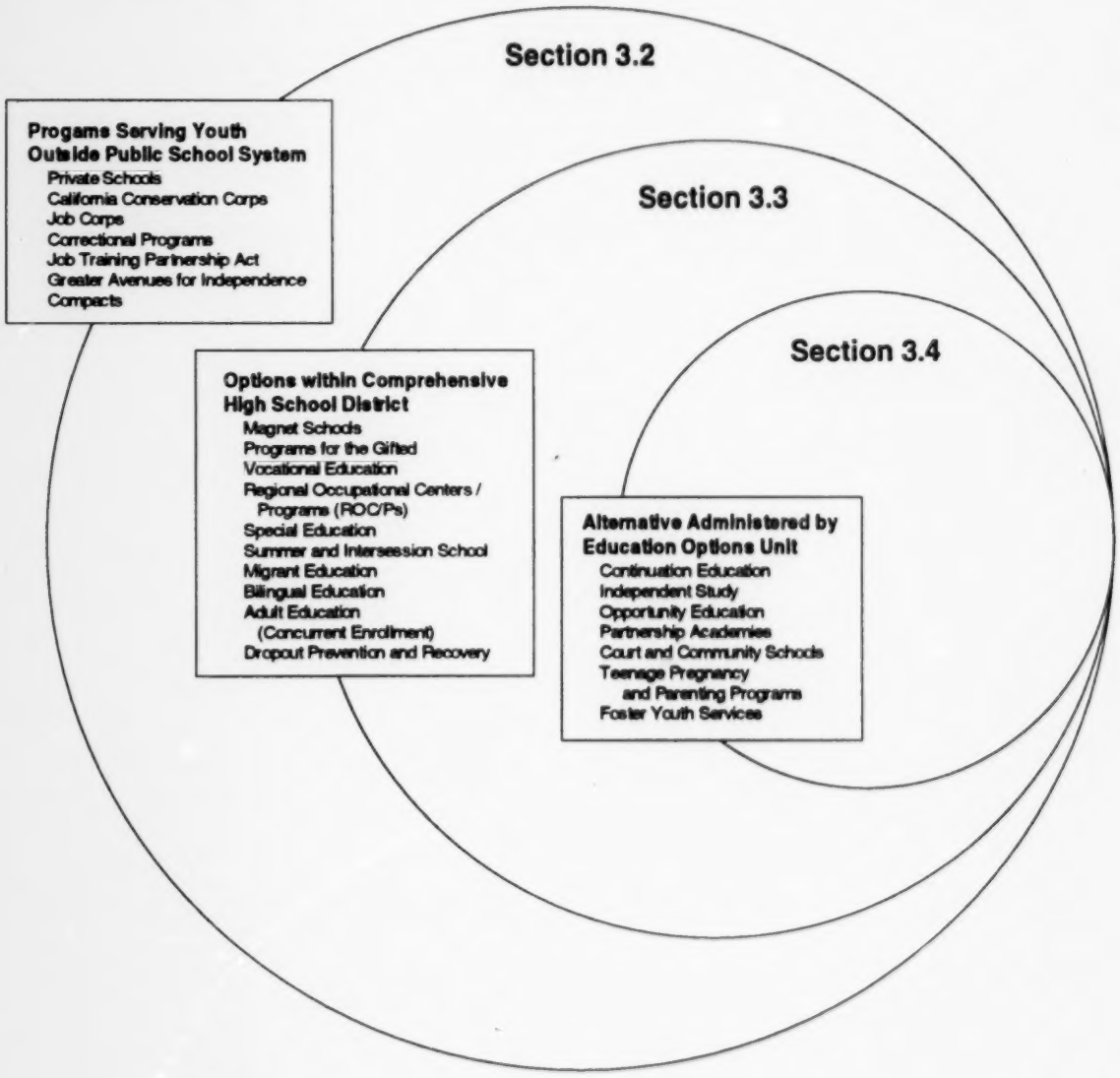
---

[1] It is common to hear today's schools and instructional programs referred to as the "educational system." This term does not reflect reality. "System" has a specific meaning—it refers to a societal subsystem that developed through history to fulfill certain social functions. (See Chapter 2 of ***Educational Needs Assessment for California's Youth: Planning Educational Options for the 21st Century***, Pacific Management and Research, May 1990.) Systems, whether mechanical, cybernetic, biological or social are highly structured entities open to exchange of energy and resources, and in some cases information. The application of General Systems Theory to social systems was pioneered by Walter Buckley, ***Sociology and Modern Systems Theory*** (Englewood Cliffs, New Jersey, Prentice-Hall, 1967). There have been many approaches to applying the concepts to education systems, an early attempt can be found in Robert G. Smith, ***The Engineering of Educational and Training Systems***, Lexington, Massachusetts, Heath Lexington Books, 1971.

[2] Michael Katz (Editor), ***School Reforms Past and Present***, Little, Brown and Company, Boston, 1971, pages 65–87; and John R. Harter, "Implementation of Independent Study in California," unpublished dissertation, University of California, Berkeley, 1980, Chapters 1 and 2.

Exhibit 3.1
STRUCTURE OF CHAPTER

This exhibit is an outline of the chapter. It progresses from programs run outside of school districts, to comprehensive high schools run within school districts, to specific alternative education programs.



In the early days, public education enrolled only a small fraction of the youth population. In 1910, only 10 percent of teenage youth were enrolled in high school. During the 1920s, schools placed more emphasis on vocational education and preparation for working life. As a result, more working class students were attracted to schools as a replacement for declining apprenticeship possibilities. The numbers of young people attending high school increased by about 10 percent a decade. During the depression and the years leading up to World War II, high schools emphasized citizenship, training and basic skills for all youth and provided college preparation for the minority going on with their education. The war kept high school graduation rates down. It was not until the 1950s that more than half of high-school-age youth actually obtained a high school diploma.

Among the findings of this chapter, one stands out. The traditional notion that there is a common school program for all students is not a reality. The issue for the future is how we integrate and plan these options.

Post-war prosperity, and the cold war, had a tremendous effect on high school. The specter of Sputnik in 1957, led to new exhortations. Young people had to excel in science and technology if we were to beat the Russians. High school graduation was defined as the bare minimum preparation for successful participation in the economy.

During the 1950s, the *National Defense Education Act* (**NDEA**) was passed by Congress to encourage secondary level curriculum development, course offerings, and counseling and guidance activities to prepare students for post-secondary training. Consequently, the "college preparatory" function of high schools gained prominence. Larger high schools offered an economy of scale to provide laboratories, equipment, and specialized courses. Emphasis was placed on the advanced preparation of the top 10 or 15 percent of the student population. In place of older models of general education, high schools adopted from colleges and universities the structure of academic disciplines.

During the 1960s, the "baby boom" generation created the largest high school classes ever seen. Changing demographics, and the civil rights movement, brought increasing numbers of "minorities" into the high school. Despite the inclusion of formerly disenfranchised groups, high schools seemed to breed alienation and anomie faster than academic excellence. In the 1970s and 1980s, dropout rates increased steadily and skill achievement declined to the point where failures within our schools made the United States a "nation at-risk." Today, educators, business leaders and citizens call for a restructuring of our schools.

The Movement for Educational Choice

For more than 20 years, the concept of offering a variety of educational choices has been developing into a national movement. Advocates of this vision see education as a catalog of choices for both students and teachers. Choice advocates emphasize differences in student needs and learning styles. They push for smaller class size, individualized instruction and the availability of alternative modes of learning.

The movement for educational choice has involved parents, students, and educators in the process of developing educational philosophies, mission statements, and curricula for a variety of distinctive schools and programs. Thus the educational options movement emphasizes variety and freedom of choice. Even the traditional forms of "comprehensive" school are seen as simply one alternative among others.

Historically in California, "alternative" education programs developed in response to the perceived needs of particular student groups.

Historically in California, "alternative" education programs developed in response to the perceived needs of particular student groups, needs that were not being addressed adequately by the school system. Programs were established as alternatives to the "regular" comprehensive school mandated by compulsory school attendance laws. These alternative programs are offered to students in lieu of the regular curriculum, and consequently are sometimes perceived as lesser, easier, or inferior programs. Some of these new programs are truly optional. In others, students or teachers may be involuntarily assigned.

To meet the rapidly changing social and economic conditions of California, several new alternative programs were established in the 1980s. These programs have sought to prevent dropouts, aid teenage parents, and better prepare students for economic success.

3.2 Programs Outside Public School Districts

The California Department of Education (**CDE**) and local school districts are not the sole providers of instruction for youth. California youths are offered a vast array of educational programs. This section presents a broad overview of some of the programs not primarily delivered through school districts. These options include Private Schools, the California Conservation Corps (**CCC**), Job Corps, Correctional Programs (Juvenile Hall, Camps and Ranches, California Youth Authority), Job Training Partnership Act (**JTPA**), Greater Avenues for Independence (**GAIN**), and California Compacts

With the exception of Private Schools, each of these options will be reviewed in terms of their educational activities, funding, and characteristics of participants.

- **Private Schools.** In 1988-89, there were 6,882 private elementary and high schools in California serving 524,722 students.[3] Between 1984 and 1988, the number of private schools increased 50 percent. Private school enrollment, however, declined as a percentage of total enrollment in California schools. During the same period, the percentage of high school age students enrolled in private schools dropped from 11.7 to 10.2 percent. This data indicates that students exiting the public school system are not leaving to attend private schools. Notably, more than half of all private schools have enrollments of 10 or less. This suggests that parents and neighborhoods may be creating their own schools. Also, some observers claim that many private schools have emerged to meet the demand for "nontraditional" educational methods (*e.g.* Montessori methods, open classrooms, individualized instruction). Data from a national study, *High School and Beyond*, showed that Catholic schools were more effective than public schools with "at-risk" students. No statewide data is available on the sex, race-ethnicity, or socioeconomic status of California students attending private schools.

[3] Unless otherwise noted, information on private schools was obtained from the California Department of Education, ***Enrollment and Staff in California's Private Elementary and High Schools, 1988-1989***, Sacramento, 1989.

Students exiting the public school system are not leaving to attend private school

- **California Conservation Corps (CCC).** The CCC is a "work-ethic" program that fosters youth development and environmental conservation. The Corps is based in Sacramento, and has 18 residential centers, 30 nonresidential satellite locations, and a San Luis Obispo training academy. CCC programs operate through "project sponsors," such as the U. S. Forest Service, the Department of Fish and Game, the Department of Parks and Recreation, and the Los Angeles County Public Works Department. In 1988–89, the California Conservation Corps' total expenditure was $55,602,000. These funds were spent on orientation and training, base and fire centers, energy program, nonresidential program, and administration.[4] According to one source, for every $1 spent on the California Conservation Corps, $1.77 in benefits is returned to taxpayers.[5] CCC applicants must be between the ages of 18 and 23, not on parole or probation, California residents, and willing to work hard. High school graduates can learn about conservation awareness and career opportunities. Those without diplomas can take GED courses. Members must practice writing skills by keeping a journal. Members may earn up to 20 units of credit for their work and classes, with tuition paid by CCC. Between 1976 and May 1989, 41,279 members have passed through the corps. Presently there are approximately 2,100 corps enrolled. Relative to the state population, participants in CCC are disproportionately white. Eighty percent of members are male. Upon entry, 66 percent are 20 years or under and 34 percent are from 21 to 23 years.[6]

- **Job Corps.** Job Corps is the largest nationwide vocational training program devised to address the unemployment problems of disadvantaged youth. It is directed and funded by the federal government under a section of the *Job Training Partnership Act* (**JTPA**). It is an expensive program, primarily because it is a residential program that provides comprehensive education and socialization. Each slot costs an estimated $15,000 a year. California is contracted to receive $165,303,964 between 1986 and 1995.[7] The program is voluntary and targets youth who can benefit from services in either residential or nonresidential settings of Corps. Educational and training programs allow members to progress at their own rate toward further education and training, entry-level employment, or entrance to the Armed Forces.[8] New participants are tested in reading and mathematics to determine performance and placement. Participants with difficulties are given tutorial instruction. They must be between 16 and 22 years old, unemployed or underemployed, and not have a serious illness or a serious criminal record.[9] A typical participant is an 18 year-old high school dropout who reads at the elementary level, comes form a poor family, and has never held a full-time job.[10] There are 4,100 participants in the region that includes California, Arizona, Nevada, Hawaii and the Pacific Island Territories. Some 53 percent are male; 47 percent are female. Minority enrollment is estimated to be about 70 percent.

---

[4] ***Analysis of the 1990–1991 Budget Bill***, State of California, Sacramento, page 325.

[5] Thomas Moore, "For Whom the Corps Toils," ***U.S. News & World Report***, February 13, 1989, page 25.

[6] The majority of information in this section was provided by Susanne Levitsky, Public Information Officer for the California Conservation Corps.

[7] Donna Hart, Contract Specialists, Region IX Office.

[8] Job Corps-Region IX: Program Description, page 2.

[9] Some centers provide programs for youth over 22 with special needs.

[10] Job Corps-Region IX, *op. cit.*, page 2.

Job Corps is an expensive program. The major reason for this high cost is that it is a residential program that provides comprehensive educational and socialization.

- **Correctional Programs.** Educational options are not always voluntary. Young people may be placed into correctional educational settings against their will. There are three major "custodial" settings. They include Juvenile Hall, Camps and Ranches, and California Youth Authority (**CYA**). All are 24-hour facilities. Youths in these placements have been removed from their homes by a juvenile court. While a student may not receive the majority of his or her education at a correctional placement, the number of students using these services is large enough to merit attention. In 1990, the average daily population of youths in out-of-home placements will be approximately 23,600.[11] Corrective custody programs are organized by coordinating state and county agencies. Counties are responsible for the administration and educational programs of juvenile halls, and camps and ranches. The CYA administers many educational activities. These include public service, employment preparation, competency-based education, drug and alcohol abuse programs, and sex offender programs. CYA educational programs include many of the programs that would be found in a typical high school, including academic, vocational and special education (special education includes programs for the Limited English Proficient and the mentally handicapped). Students are encouraged either to get a high school diploma or a GED certificate. There are 350 full-time teachers in CYA institutions and camps. Enrollments in educational activities in 1987–88 were 6,918. The average daily population of youths 16 years and over during the same year was 8,402, suggesting that a majority participate in some form of schooling.[12] Court school programs are funded through average daily attendance (**ADA**), like public schools.[13] The daily costs per student for these programs during 1988–89 ranged between $56 and $77. For fiscal year 1989–90, the CYA's budget was $387 million. The annual cost to house a ward was $28,563. The most current data for 1990 show that CYA wards are 42 percent black, 32.2 percent Hispanic, 20.8 percent white, and 5.0 percent other. The average length of stay is 22.1 months and the average ward is 19.1 years old. "Profiles of First Commitments" reveals that many offenders have traditional "at-risk" traits and the average grade level attainment shows that these youths are behind their peers in educational attainment and basic skills. For example, the average age of a CYA first offender is 17.2 years with an average educational attainment equalling the 7th grade.[14]

- **Job Training Partnership Act (JTPA).** JTPA attempts to decrease unemployment and welfare dependency by targeting and training people with barriers to employment, especially economically disadvantaged, as well as others (*i.e.* limited English or reading skills, handicapped, poverty). Almost half of California participants are under 20. JTPA programs are executed locally by 51 Service Delivery Areas (**SDAs**) and Private Industry Councils (**PICs**). JTPA is moving toward a more systemic approach to services. Other legislated training and service programs are linked to JTPA through local service delivery networks. Training and services are delivered to participants through providers such as Regional Occupational Centers

---

[11] ***The 1989–1990 Budget: Perspective and Issues, Report of the Legislative Analyst to the Joint Legislative Budget Committee***, Sacramento, 1989, page 319.

[12] Barry Stern, ***The California Adult Education System: Background Paper on the Response of Adult Education Institutions to the Needs of Californians***, Pacific Management and Research Associates, February 9, 1989, page 29.

[13] According to the *Education Code* (Item 46364) ADA is computed in the following manner: the average daily attendance of pupils attending an elementary school or secondary school maintained by a county superintendent of schools for the education of persons in a juvenile hall or in a juvenile home or camp, shall be computed by dividing the total days of pupils attendance in the school during the fiscal year by 175 and the average daily attendance so computed shall be credited to the county school service fund.

[14] ***The 1989–1990 Budget: Perspective and Issues, Report of the Legislative Analyst to the Joint Legislative Budget Committee***, *op. cit.*, page 323.

and Programs (**ROC/Ps**), adult schools, community colleges, *Greater Avenues for Independence* (**GAIN**), and other programs. JTPA programs provide instructional services such as bilingual education, remedial education, vocational and on-the-job training, job search assistance, GED preparation, career guidance, and individual counseling. JTPA is federally funded. Funds are channeled by the U.S. Department of Labor to the Governor of California who then administers the funds to the California Employment Development Department (**EDD**). The Job Training Partnership Office (**JTPA**) of EDD subgrants the funds directly to local PICs and SDAs. In 1988–89, JTPA funds budgeted to California totaled $302 million. Some funds go to specific programs administered by the CDE through an agreement with EDD. Enrollment and demographic information for programs receiving these funds was not available for this report. The most current data (1988–89) shows that there are almost an equal number of adults and youths in the JTPA. The educational level also reveals that there are more high school graduates than dropouts.

JTPA programs provide instructional services such as bilingual education, remedial education, vocational and on-the-job training, job search assistance, GED preparation, career guidance, and individual counseling.

- **Greater Avenues to Independence (GAIN).** GAIN is a comprehensive welfare reform program initiated in the 1980's to provide education and employment training to move welfare recipients toward employment and self-sufficiency. The GAIN program requires involvement of state-level employment training and education systems. GAIN deserves attention because it attempts to systematize existing resources from various agencies. GAIN serves mostly adults, only 5,029 (5.7 percent) of GAIN participants are under 20 years of age. It is not known how many direct beneficiaries are under age 18. However, many youth under age 18 are indirectly impacted as children of program participants. This program is referenced in this report because GAIN offers another avenue for poor youths, who do not benefit from public education, to receive education and job training. GAIN funding comes from funds appropriated specifically for GAIN and funds redirected from other programs. The budget assumes that GAIN participants will receive education and training service at no charge to the GAIN program through programs such as adult education, community colleges, ROC/Ps, and JTPA. If educational services or training for GAIN participants can be provided from existing state school funds, no additional funds are provided to those institutions. County Welfare Departments (**CWDs**) are responsible for local administration of GAIN. GAIN provides a range of services in six main areas: (1) job-search activities, (2) basic education, (3) vocational education and training, (4) on-the-job training, (5) preemployment preparation (**PREP**), and (6) supported work and transitional employment. Additionally, GAIN provides support services such as child care, transportation, ancillary expenses and personal counseling. Basic education includes adult basic education (**ABE**) classes, GED classes, and English as a Second Language (**ESL**) classes. GAIN participants are from low socioeconomic backgrounds and 66 percent have less than a high school equivalent education. Reporting enrollment in GAIN is problematic since participants are spread over a wide range of agencies. The typical GAIN participant is a mandatory participant who is over twenty years old. Over two-thirds are women, and most are white. Over 60 percent have less than a high school equivalent and over 83 percent have been on welfare.[15] Currently, two-thirds of participants are unemployed.

[15] Part of the reason that 100 percent have not reported being on welfare is because some GAIN participants receive assistance through Refugee Cash Assistance.

There are other programs outside the jurisdiction of school districts. These programs should be considered as part of long-term planning to meet the educational need of youth.

- **California Compacts.** In 1988, the State Superintendent of Public Instruction, the State Chamber of Commerce and the Business Roundtable called for the creation of local "compacts."[16] A Compact is a joint venture between a number of partners including educators, business, government, and communities. The short-term goal of the California Compact is to take action that will help "at-risk" students complete high school. The long-term objective is "that every student graduating from high school who meets the grade, discipline, attendance, and instructional standards outlined by local school and business officials will be guaranteed priority hiring status for available jobs and/or be given the necessary financial assistance to attend postsecondary education."[17] There is no state funding for compacts. It is assumed that if establishing a compact is important to a community, the funds will be raised locally. Assistance is provided to local districts in innovative ways. About thirty communities are participating in the planning and building of arrangements among schools, business, higher education, government agencies, and community agencies. Communities have the responsibility of developing their own programs aimed at improving school retention, job placement, and college admission rates, especially for "at-risk" youth.[18] Many programs will include improving basic academic skills, developing basic vocational skills, developing job readiness skills, work experience, and motivational activities. Since most compacts are in the development stages, these program elements are flexible and subject to change. This opens the possibility for innovation as the program matures. Given the developmental stages of California compacts, no data exist regarding the number and characteristics of participating students.

Comprehensive high schools governed under local school districts provide the vast bulk of instruction to California's youth. However, there are other programs outside the jurisdiction of school districts. These programs should be considered as part of long-term planning to meet the educational need of youth.

---

[16] In the past, partnerships between businesses and schools formed on a one-on-one basis—one school and one business. Businesses involved in these relationships compared notes and realized this limited effort was not as successful as they would like. As a result, the compact system emerged. It offers opportunities for a broader, community-wide partnership.

[17] Carol Abbott, ***A Handbook for the California Compact***, Intersegmental Relations Division, California Department of Education, page 1. The information presented is tentative since the California Compact is in the planning stages.

[18] The ***Handbook for the California Compact*** provides a model for appropriate personnel, but this is only theoretical; it has not yet been implemented in widespread fashion. Since the program focuses on dropout youth who may be difficult to work with, the ***Handbook*** recommends only the most dedicated, skilled, and concerned teachers. It also recommends that teachers should volunteer to work at Compacts, not be assigned. There are also expectations that companies involved will recruit personnel who genuinely care about young people.

FOCUS ON INSTRUCTIONAL TECHNOLOGY

For decades there have been promises that instructional technology will revolutionize high schools. To date, there have been notable impacts, but no revolution. Does technology really have the potential to deliver what is promised?

Instructional technology has come to permeate all areas of education. From non-school district educational program to "comprehensive high schools" to the most specialized alternative education programs, there are countless working examples. Matching these applications are seemingly endless and flamboyant claims of how technology will revolutionize our schools. The reality is that technology has had only marginal impact. The question that remains is whether the past is a predictor of the future, or whether the promised values of technology are yet to be realized.

Instructional Technology Is Not New

Instructional technology is nothing new. In the most fundamental sense, books and chalkboards are technology—applied tools that we now see as part of the woodwork. Film and slides have been with us for decades, video tapes and television for twenty years, and computer-assisted instruction since the late 1970's. Recently, we have seen advances and integration of all these technologies into "multimedia" learning. The promises have been dramatic for years. Instructional technology will stimulate interest and motivation to learn. Technology will save money, and cut down on time required for student records and other paperwork. Technology allows study to be customized for individuals. It's fun!

So Why Isn't It Used Everywhere?

If instructional technology is so good, why isn't it used more extensively? There are no definitive studies of the assimilation and impacts of educational technology. However, there is some consensus on why technology is not used more extensively in our schools:

- **Assimilation Takes Time.** It takes time to assimilate technology, but over time it is used extensively. For example, video tape was heralded as a dramatic breakthrough in the early 1970's. Today, no one rushes down halls to announce use of VCRs, but 90 percent of our schools have them available for all classrooms.

- **Personal and Institutional Barriers.** A number of barriers have prevented assimilation of technology. First, funds are rarely available to procure state-of-the-art equipment for large numbers of students. Second, awareness of new technologies and their value is not always high among practicing educators. In many cases, this is a barrier to purchasing educational technology. In the worst cases, uninformed teachers and administrators have spent fortunes on obsolete technology. Third, even when technology is available to the teacher, it is sometimes not adequately understood or fully utilized. Frequently teachers have stockpiles of educational software, but no time to learn or use it. Further, there is evidence that technology has not been used as a vehicle for a bold break from the past. Teachers tend to incorporate technology into the passive learning mode—using video and television as "lectures," or computer-assisted instruction for simple drill exercises, rather than for interactive learning.

- **Early Technology Was Not as Good as Promised.** Puffed-up marketing claims, coupled with poor hardware, software and maintenance in the early days, have made some educators skeptical. Video tape learning programs promoted in the 1970's never became the thrilling experience described in marketing presentations, nor did they allow students to interact with and query the information system being promoted. Video tapes are in common use to augment lectures. Similarly, the computer-assisted instruction of the 1970's was helpful, but not revolutionary. It was slow, limited in scope, dependent on the user's ability to read, and graphically primitive. It is really no surprise that teachers and parents have fallen into the trap of using computers for drill rather than learning.

In short, technology has impacted education, but its application has not been massive and effects have not yet been revolutionary.

Does the Future Hold More Promise?

Debate continues to rage over whether technology will be the foundation upon which schools can be renewed and improved. While there is little disagreement that the job cannot be done with technology alone, there is a growing belief that the 1990's will be the decade of instructional technologies. Advances and integration of new technologies are creating educational tools of staggering potential. Four trends are particularly important:

Continued next page

- **Technological Advances.** Many of our existing technologies will continue to exist, but they will be significantly better for instruction. Microchips make it possible to support exquisitely detailed graphics and animation, interact with users via voice as well as typed entry, and access and organize massive amounts of information at blinding speeds. One recent development, "virtual reality," actually simulates entire environments, such as rooms and cities. These chips also allow more friendly user interfaces requiring little, if any, technical skills. Powerful instructional software exists, from history simulations to interactive encyclopedias. Resources exist today that allow teachers to directly apply these "user friendly" systems to custom design sophisticated computer-based learning programs. Increasingly powerful display monitors, graphic printers, mass-information storage devices and telecommunications compound the power of these chip-based computers. While advances in "hardware" will certainly continue, there is a growing agreement that our existing and impending computational powers are so great and inexpensive that the next century will be dominated by the development of "software" and other programmed intelligence to use this power.

- **Declining Costs.** As technology advances, production automation increases. "Economies of scale" allow mass production to reduce the cost of new instructional technology. The cost of an IBM personal computer in 1981 was well over $3,000. Today, the equivalent of that machine costs under $400 in non-inflation controlled prices. In a matter of years, state-of-the-art technology that once seemed unaffordable will be commonplace.

- **Better-Informed Users.** Much needs to be done to inform consumers about the potential and limits of "information tools," and much remains to be done to train teachers and other educational staffs how to effectively utilize technology. However, much has also been accomplished. Most school clerical staff and a growing portion of teachers have had working exposure to computers and related technologies. Focused skill development is needed, but we are near the end of the "computer phobia" tunnel. During the 1980's the keyboard almost entirely replaced the typewriter. The basic human foundations have been laid for a smoother process of technological assimilation into our schools.

- **Integration of Technology.** Perhaps the most important single development is the integration of diverse technologies into "multi-media" learning machines. The computer, videotape, and electronic databases no longer stand as isolated resources. Major advances to combinethese technologies so that teachers and students can, for example, access data on 18th Century European nations interactively while playing music of the same period and displaying video images of historic landmarks. These resources can be used by individuals, small groups or entire classes of students. They allow students to explore ideas and information at will—developing their own associations, worldviews and the capacity to question. These integrated resources exist today and can be organized to support our learning goals. They will become commonplace in our homes, offices and schools before the turn of the century.

The promise of instructional technology has not yet been realized. To date, the power and value of these technologies have not yet been great enough, and the costs have not yet been low enough to cause widespread application—let alone major changes in the ways we educate.

Ultimately, the hope and promise of instructional technology is not that it will save time, cut costs or reduce paperwork. Rather, the hope is that these technologies will revitalize our schools, galvanize enthusiasm for learning, and foster greater achievement. The promise is that technology will make it possible to enrich the learning process in ways that even the best of lecturers cannot do. Advocates of instructional technology argue that it can be a major force for moving education from a passive and standardized lecture mode to a more stimulating and individualized mode of learning where the student and teacher have more resources immediately at hand to pursue the moment of learning excitement.

There is, as yet, no definitive conclusion about the impacts or ultimate potentials of instructional technologies. While objective evaluation is needed, technology holds significant potential for enhancing the learning process. It appears to be one of our most promising resources for renewing and improving our schools.

NOTE: Microchips have progressed through a "generation" of advancement every three or four years. Each generation of advances makes them faster, more flexible, smaller and cheaper.

SOURCES: Nancy Perry, *Computers Come of Age in Class*, *Fortune*, Spring 1990; *The Technology Revolution Comes to Education*, December 10, 1990 and *It's a PC, It's a TV—It's Multi-Media*, October 9, 1989, *Business Week*; John Holusha, *Kodak Mames Film, Electronic Imaging*, September 24, 1990, and Bart Ziegler, *New Intel Chip Paves Computer Video Cost*, November 6, 1990, *Sacramento Bee*, and Jon Roland, *Nanotechnology: The Promise and Peril of Ultratiny Machines* and Arthur J. Cordell, *Preparing for the Challenges of the New Media*, *The Futurist*, March-April 1991; Robert Horn, *Mapping HyperText*, The Lexington Institute, Massachusetts, 1989.

3.3 Comprehensive High Schools

This section covers comprehensive high school programs, and other interventions and instructional strategies, that are available to high school students.

This section has two parts. The first part looks at today's high school as a "sum of its parts." The second part describes a variety of "mainstream" programs or options that exist within the comprehensive high school. The next or fourth section of this chapter will focus on more specific options within high schools that have commonly been viewed as out-of-the-mainstream **(Exhibit 3.1)**.

Despite enormous technological and cultural changes over the last 70 years, the role of the typical high school remains the same. The high school is still expected to preserve and transmit knowledge and skills, sort and select, socialize and assimilate, and provide custodial care.

Overview of Comprehensive High School

The comprehensive high school was created in the 1920's to provide both college preparation and vocational education for American youth population. Despite enormous technological and cultural changes over the last 70 years, the role of the typical high school remains the same. The high school is still expected to preserve and transmit knowledge and skills, sort and select, socialize and assimilate, and provide custodial care. Despite this consistency of purpose, a number of options have emerged to meet compulsory attendance requirements,[19] graduation requirements, and a variety of special needs.

The mission of the high school, as stated in the *California Education Code* (Section 51228), is to prepare students for citizenship, and admission to California public universities or entry-level employment upon graduation. In reality, the goal of preparing students for college receives much greater emphasis than preparing students for employment and citizenship. This emphasis is apparent in the high school's organization, standards, curriculum, and performance measures.

Organization

High schools are regulated by state laws and local school boards. They are either part of a unified school district or a high school district. Unified districts cover grades K–12 whereas high school districts cover grades 7–12 or 9–12. Each high school has a principal and several assistant principals. The typical teacher instructs 150 to 160 students per day, 30 to 35 students to a class.

Graduation Standards and Educational Activities

Development of courses and curriculum is guided in part by state and local graduation and proficiency standards, college entrance requirements, and accreditation standards.

All local school boards must adopt graduation standards that meet, at a minimum, the statewide standards set by *Senate Bill 813* (1983).[20] To get a diploma, students must meet basic skills proficiency standards.[21] As a practical

[19] Youths ages 6 to 16 must attend school full time (***Education Code***, Section 48200).

[20] ***Senate Bill 813***, enacted in 1983 by the California legislature increased school graduation standards, provided incentives to lengthen the school day and school year, increased beginning teachers' salaries, authorized the Superintendent of Public Instruction to develop model curriculum standards, and made a number of other changes in school law.

[21] ***Education Code***, Section 51215 *et seq.*

matter, the standards for district proficiency tests are low and few students fail the tests in 12th grade.

To a large degree, graduation and college entrance requirements determine the activities of the high school. Three of the most important of these activities are instruction, curriculum and tracking.

- **Instruction.** High school instruction usually takes the form of a traditional classroom-lecture format which is scheduled into five to seven course periods each day. School days almost always match the standard adult work week. This format accommodates college entrance subject matter requirements, and defines the instructional day for college bound students, and workweek conditions for non-college bound students.

- **Curriculum.** A major focus of the school reform movement nationwide has been to increase high school graduation standards and college entrance requirements. In 1983, California *Senate Bill 813* established a statewide "core curriculum" that increased advanced course offerings and reduced offerings in areas not required for college entrance, such as vocational education (**Exhibit 3.2**).

Exhibit 3.2
"CORE CURRICULUM" GRADUATION REQUIREMENTS MANDATED BY STATE LAW

The graduation requirements mandated by *Senate Bill 813* emphasize college prep and academic studies.

Course Requirements:	Pre-*SB 813* Requirements:	*SB 813* Requirements:
English	Years Unspecifed	3 Years
Foreigh Language	Years Unspecifed	1 Year (or Fine Arts)
Mathematics	Years Unspecifed	2 Years
Natural Sciences	Years Unspecifed	2 Years
Social Studies (American History and Government, Other)	Years Unspecifed	3 Years
Fine Arts	Years Unspecifed	1 Year (or Foreign Language)
Physical Education	400 Minutes Every 10 School Days	2 Years
Other Course Work	Specified by Governing Board	Specified by Governing Board

Source: ***Senate Bill 813*** (Hughes-Hart Education Reform Act), California State Senate, Sacramento, 1983. Prior to ***SB 813***, graduation requirements were loosely specified by the 1979 amendments to the ***California Education Code*** (Sections 51225, 51222 and 51260).

One study of course enrollments within a representative group of California high schools between 1982–83 and 1988–89 found that enrollments in Advanced Placement English increased by 50 percent, advanced math by 30 percent, and chemistry and physics by 39 percent. However, enrollments in vocational and business education declined by 52 percent.[22] These trends have made instruction increasingly rigid for both college and non-college-bound students. Students who attend high school for four years and take five classes per year have time available for twenty classes. College-bound

[22] These figures have been adjusted for changes in total school enrollment. PACE, ***Conditions of Education in California, 1989*** (Policy Analysis for California Education) Berkeley, page 67.

students must take at least 17 courses required for college entrance, leaving time only for three elective classes. This also means that a student who fails is allowed only three chances to repeat a course.

- **Tracking.** While "tracking" is opposed by many, it is a reality. Tracking students into separate sequences of courses labeled "college prep," "general," or "remedial" is a fundamental organizing principle of the standard high school and a powerful sorting mechanism.

In the early 1980's, more California high school students were placed in the general track than the national average (45 percent compared to 36 percent).[23] This growth indicates a reduced commitment by schools and students alike to pursue "college prep" curriculum (**Exhibit 3.3**).[24]

Exhibit 3.3
ESTIMATED PERCENTAGE OF CALIFORNIA HIGH SCHOOL STUDENTS BY TRACK, 1982–83

Tracking students is a fundamental organizing principle and a powerful sorting mechanism.

Student Tracking:	Estimated Percent:
Gifted or Honors	10%
College Prep	35%
General	45%
Remedial	20%

Note: Figures add to more than 100 because students can be counted in more than one track.

Source: ***Paths Through High School***, California Department of Education, Chapter 3, page 3.

For the most part, students are placed into tracks according to results on standardized tests, their post-secondary plans, and teachers recommendations.[25] The typical counselor, who guides students toward appropriate educational goals, has a caseload of 350 students. "Once students are tracked, they have certain educational experiences, and they are not exposed to other experiences."[26]

Ability grouping and tracking are controversial practices. Some defend them as the only way to meet the needs of students, particularly gifted students.[27] Others point to the disproportionate share of black and Hispanic students in the general track, and the fact that the system of prerequisites makes it difficult to move from track to track, and the evidence that movement between tracks is rare and almost always "down."[28] Further, the resources and attention given to students in different tracks are not likely to be equal. Because high schools tend to focus on college-bound and remedial

[23] ***Paths Through High School***, California Department of Education, Sacramento, January 1984, Chapter 3, page 3.

[24] California Assembly Office of Research, ***Dropping Out, Losing Out: The High Cost for California***, Report 074-A, Sacramento, 1985, page 60.

[25] ***The Forgotten Half: Non-College Youth in America***, The Stuart Grant Foundation on Work, Family and Citizenship, Washington D.C., January 1988, page 33; and ***Paths Through High School***, California Department of Education, Sacramento, January 1984, Chapter 4, page 4.1.

[26] ***The Forgotten Half, op. cit.***, page 30.

[27] See ***Communicator***, California Association for the Gifted, Volume XIX, Number 3, June, 1989; and Carolyn Wood "On Cooperative Learning," and Stephen Hostettler, "There Are No Gems in Generic Education."

[28] "Tracking and Ability Grouping in American Schools: Some Constitutional Questions," ***Teachers College Record***, Vol. 84, No. 4, Summer, 1984, page 802.

students needing special services, the average student in the general track receives the least attention from teachers, counselors and administrators.[29]

For the most part, instruction within today's high school takes place as classroom lectures scheduled into five to seven class periods a day. This instruction has become increasingly focused on academic studies.

High school curriculum is focused on the college-bound and offers fewer opportunities for students who go directly to work after graduation.

Funding

An estimated $4.7 billion is spent annually in state and local funds to support California high schools.[30] Funds for high schools come from federal, state and local sources. However, the bulk of funds come from the state. This funding takes the form of reimbursement for the average daily attendance (ADA) of students.[31] The dollar amount of the revenue limit received per ADA varies greatly among school districts, ranging from $2,500 to over $4,000 per school year.

The funding of California high schools has been enhanced and altered by *Proposition 98*, a referendum approved by voters in 1988. This proposition provides for the following:

- K–12 education and community colleges receive at least 41 percent of state General Fund revenues.
- Four percent of prior year's education funds in excess of the Gann Limit be set aside for educational improvement and accountability.
- Districts publish an annual *School Accountability Report Card* for every school that addresses 13 required elements.

It is noteworthy that with *Proposition 98* voters also mandated educational accountability from public schools and elected officials.[32]

Student Characteristics

In 1988–89, there were 1.3 million students enrolled within California secondary programs in grades 9–12. High school enrollments overall have been relatively stable in the 1980's, but a closer look at grade by grade enrollment reveals that there has been growth in grades 9 and 10 **(Exhibit 3.4)**.

California "school-aged" population aged 15 to 19 is expected to grow 53 percent in the 1990s—from about 1.7 million in 1990 to about 2.6 million in the year 2000.

---

[29] ***Paths Through High School***, California Department of Education, Sacramento, January 1984, Chapter 4, page 1; and *The Other Half*, Institute for Educational Leadership, Washington D.C., 1988.

[30] This is an estimate based on the number of 9–12 students in average daily attendance, multiplied by the average revenue limit in 1988–90 ***Report on Annual Average Daily Attendance***, (Legislative Analyst, ***Analysis of the Budget Bill, 1990–91***, Sacramento, 1990, page 854; and California Department of Education Local Assistance Bureau).

[31] One ADA equals 240 minutes (four hours) of instruction. Attendance is taken once a day. If a student is present during first period, the school is credited for a minimum day of instruction (240 minutes)—regardless if the student is in attendance for the remainder of the day. There is incentive reimbursement to schools for students who attend longer than four hours.

[32] "School Finance 1989–90," ***EdSource***, Volume XIII, October 1989, page 1.

Exhibit 3.4
CALIFORNIA HIGH SCHOOL ENROLLMENT BY GRADE LEVEL, 1980–81 TO 1988–89

There has been a decline in grade 11 and 12 enrollment form 591,972 in 1980–81 to 571,220 in 1988–89.

Year	1980–81	1982–83	1984–85	1986–87	1988–89
Total	1,318,713	1,263,668	1,305,148	1,332,305	1,306,077
Grade 9	327,029	331,791	364,166	348,672	356,645
Grade 10	332,489	330,936	352,756	363,756	338,785
Grade 11	317,141	303,598	307,314	341,809	313,893
Grade 12	274,831	270,700	254,211	251,281	257,327
Ungraded	67,223	26,643	26,701	26,787	39,427

Source: ***Enrollment Data,*** California Department of Education, Sacramento, 1982–83, 1984–85 and 1988–89.

About one-third of the teenage school-age population is not in school, and the percentage of school-age youth that are out of school seems to be declining. Specifically, the number of students enrolled in school as a proportion of the total California population aged 15–19 has increased from 60 percent in 1980 to 67 percent in 1988 (**Exhibit 2.10, Chapter 2**). While technical considerations about data caution against hasty conclusions,[33] these data either contradict school attrition data showing increases in the dropout rate or indicate that many youth drop out before starting high school.

Along with increasing ethnic diversity among students, more students are coming to school with a primary language other than English.

Projections from the California Department of Finance show that enrollment for grades 9 through 12 is expected to increase from 1.3 million in 1989–90 to 1.8 million in 1994–95 and reaching 1.8 million in 1998–99. This represents a 42 percent increase—half a million new students entering California schools between 1989–90 and 1998–99.[34]

Racial and ethnic diversity is expected to increase within the population of enrolled students. However, high dropout rates among Hispanic and black students attenuates this diversity. In 1985, the ethnicity of students enrolled in grades 9–12 was 9 percent Asian, 58 percent white, 23 percent Hispanic, and 10 percent black.[35] In 1988, racial ethnic breakdown of graduating students was 11 percent Asian, 60 percent white, 20 percent Hispanic, and 8 percent black.[36]

Along with increasing ethnic diversity among students, more students are coming to school with a primary language other than English. The percentage of students enrolled in grades 7 through 12 who were classified as (LEP) increased from 6 percent in 1981 to 11 percent in 1989.[37] Sixty-five percent of LEP 9–12 graders speak Spanish, and 35 percent speak other languages. This contrasts the fact that 75 percent of all LEP students K–12 speak Spanish.[38]

[33] Readers should be aware of these facts: the population aged 15 to 19 is not equal to the "school-aged" or enrolled population; migration among schools may cause double counting among the enrolled population; current population survey data show that many youth do not attend school and thus cannot drop out; more youth may be starting school in the later 1980s.

[34] Department of Finance, Demographic Research Unit, "Projection Summary, California K–12 Public School Graded Secondary Enrollment," August 4, 1989.

[35] California Department of Education, ***Racial or Ethnic Distribution of Staff and Students in California Public Schools 1984–85***, Sacramento, 1985, page 4.

[36] California Department of Education, Educational Demographics Unit.

[37] California Department of Education, ***Language Census Report for California Public Schools, 1989***, Sacramento, 1989, page 5.

[38] ***Ibid.***, page 9.

Impacts and Performance

Available data indicate that California high schools are doing a good job of preparing students for college. However, there are indications that high schools may not be adequately serving a large portion of the student body—especially non-college prep employment-bound students.

The overall performance of high schools can be measured in terms of graduation rate and statewide assessment test scores:

- **Graduation Rates.** Roughly 70 percent of high school students enrolled in 9th grade graduate and receive a diploma, while 30 percent leave without graduating. This graduation rate has been eroding steadily in California for the last 25 years—from 80 percent in 1970 to 70 percent in 1987. This low graduation rate reveals that comprehensive high schools and alternative programs are not meeting the needs of a substantial portion of the student body. Notably, most dropouts come from the ranks of general track students, the forgotten "middle" of the high school student population.[39] These trends are more alarming when one considers that a significant portion of youth aged 14 to 15 do not appear to even start 9th grade.

All in all, it cannot be said that California high schools are performing well.

- **California Assessment Program.** The California Assessment Program (CAP) is the second major measure of overall high school performance. It offers a broad scale academic measurement of performance for both college bound and non-college bound seniors. However, not all 12th graders take the CAP test. To be eligible to take the CAP, students must have sufficient units to graduate by the end of summer in their senior year. Many students in alternative programs such as continuation schools, independent study, and community schools are not eligible due to insufficient course credits. Recent CAP results from those taking the test indicate some growth in math skills of 12th graders and stable performance in verbal skills.

All in all, it cannot be said that California high schools are performing well. Over a third of those who start 9th grade do not graduate by age 18, and there are indications that significant numbers who complete high school may not have adequate skills and knowledge.

High schools appear to be succeeding in preparing students for college. However, these indicators of success must be tempered with the realization that high dropout rates are reducing the overall pool of students and thereby enhancing the proportion of students meeting college requirements.[40] Indicators of increased success in preparing students for college follow:

- **Eligibility Rates.** During the mid–1980's, high school records show there was a slight increase in the percentage of high school graduates eligible for the University of California (UC) and California State University (CSU).[41]

---

[39] Jeanie Oakes, ***Keeping Track: How Schools Structure Inequality***, Yale University Press, New Haven, 1985, page 57.

[40] The measures of college preparation (eligibility rates, SAT scores, and college-going rates) are expressed as percentages of seniors or high school graduates. To the extent that the pool of seniors and graduates has shrunk because of the large numbers dropping out, calculations of percentages of the students who remain create an overly optimistic picture of the performance of the high schools. For example, if a high school graduates 100 seniors and 25 enter four year colleges, that high school has a 25 percent four year college going rate. If the same high school experienced a drop in its graduation rate and only graduated 90 students, and the 25 four year college bound youngsters stayed in school, the college going rate would be 28 percent, up 3 points.

[41] Available studies show that the percentage of high school graduates eligible for UC grew almost a full percentage point between 1983 and 1986, the proportion eligible for CSU grew by 0.3 points during the same period. The California Postsecondary Education Commission (CPEC) assessed a sample of high school transcripts and SAT and ACT scores from the Class of 1983 and the Class of 1986 to estimate the percentage of students who have earned eligibility to UC or CSU. The figures do not reflect the numbers who actually attended these two systems, but rather the number who would be eligible for admission based on their high school record. (***Eligibility of California's 1986***

BEST COPY AVAILABLE

- **Completion of College Preparation Courses.** The percentage of high school graduates completing the A through F sequence of courses required as part of the admission to the University of California has remained stable through the mid-1980's and increased in 1988–89.[42]

- **College Entrance Examinations.** Scholastic Aptitude Test (SAT) scores have improved over the past ten years. The average score of California high school students that take the SAT exceeds the national average in math but lags in verbal. Average SAT for both California and the nation slid for decades, but have recovered somewhat in the 1980's. Since 1978–79 the percentage of California graduates who took the SAT has grown from 38 percent to 43 percent.[43] When one considers that average test scores tend to decline as the percentage of seniors taking the test increases,[44] real educational gains may be greater than scores indicate.

In sum, the performance measures for high schools indicate progress in preparing California students for four year college, but continued weakness in preparing the employment-bound general track student.

- **College Going Rates.** Controlled analysis indicates a "real" gain in college going rates.[45] Specifically, between 1975 and 1987, there has been a 22.5 percent increase in the proportion of students who attend community colleges or public universities after graduation.

There are very few measurements of the success of high schools in preparing students for employment, and measures that do exist are inadequate.[46]

Surveys to determine employer satisfaction with the skill, knowledge and attitudes of recent high school graduates provides one indicator of employment preparation success. In recent years, such studies have generally indicated that employers are not satisfied with the general or job-specific skills of recent high school graduates.[47]

In sum, the performance measures for high schools indicate progress in preparing California students for four year college, but continued weakness in preparing the employment-bound general track student. Given that SAT scores, college preparation, and college going rates are increasing, the relatively stable scores of the California Assessment Program (CAP) test suggests that gains in college preparation may be counterbalanced with losses in achievement among non-college bound students. This is underscored by increasing dropout rates and prevailing views among the business community that high school graduates are ill-prepared for the world of work.

High School Graduates for Admission to Its Public Universities, California Postsecondary Education Commission, Report 88–10, Sacramento, March 1988.)

[42] PACE, *Conditions of Education in 1989*, pages 70–71.

[43] This increase is not an artifact of decreased graduation rates.

[44] The *Final Report of the California Education Summit*, Sacramento, 1990 made this argument, pointing out that in 1963 nationwide 16 percent of all seniors took the SAT, whereas in 1989, 40 percent took the test. The report also pointed to the higher percentage of California test takers who were from black and Hispanic ethnicity who score, on average, lower than white and Asian students.

[45] There have been real gains in four year college going rates from 1975 to 1987—that is, the apparent gains are not an artifact of declining graduation rates. The apparent gain of 5.7 points in the four year college going rate is reduced to 2.6 points after indexing it to a 100 percent graduation rate. Likewise, the decline in the two year college going rate is "real" and slightly higher (10 points as opposed to 8.7 points) when indexed to the high school graduation rate.

[46] *Review of Educational Options for California Youth*, Pacific Management and Research Associates, Sacramento, September 1990, pages 3-15 to 3-16.

[47] *California Business Executives Assess the Minimum Academic Competencies of High School Graduates*, The Field Institute, San Francisco, May 1984; Wellford Wilms, *Technology, Job Skills and Education: Reassessment of the Links*, Los Angeles Chamber of Commerce, Los Angeles, January 1983; and Fred Best and Sherry Bell, *Labor Demand Forecasting for Los Angeles: Can Existing Systems Be Improved?*, Los Angeles Business Labor Council, Los Angeles, September 1983.

Options Within Today's High School

Today's high school is not a monolith. In reality, it is a cluster of options to serve a variety of individuals and groups. Some programs operate within the comprehensive high school itself. Some are available though separate institutions. These educational options include programs, instructional strategies, and interventions. Some of the most important of these options include:

- Magnet Schools
- Programs for the Gifted
- Employment Related Education
- Special Education
- Summer School
- Migrant Education
- Bilingual Education and LEP Programs
- Adult Education
- Dropout Prevention and Recovery Programs
- Educational Options/Alternative Education

Magnet schools began as a means to foster voluntary integration. The term also describes specialized schools-within-schools or programs that feature parental choice.

The purpose, organization, activities, funding, student characteristics, and impacts of these options are described in this section. The next section of this chapter will focus on the last option in the list above—programs and strategies that have traditionally been known as educational options.

Magnet Schools

Magnet schools began as a means to foster voluntary integration by encouraging parents to send their children out of the neighborhood to a better opportunity "at the end of the bus ride." The term "magnet" also describes specialized schools-within-schools or programs that feature parental choice but are not designed specifically for integration purposes. These specialized schools provide enriched and concentrated instruction in areas such as the arts, science or vocational training.

High school magnets are widely available in California. Although there are no systematic data collected on magnet schools, the California Department of Education estimates there may be as many as 500 magnet schools serving the K-12 population throughout the state.

Voluntary and involuntary desegregation funds from the state support many high school magnet programs.[48] In addition, there is state funding to support the creation of specialized high schools devoted to a particular area of the curriculum. These schools commonly receive both desegregation funding and specialized high school funds.

Although some are separate high schools drawing students from more than one school district, most specialized high schools are actually schools within schools. Unlike desegregation magnets, these schools are under no requirement

[48] The state funds involuntary desegregation costs incurred by school districts as a result of court orders through the Board of Control Mandated Cost provisions. There is separate funding for involuntary desegregation program support in the state budget in a separate line item.

for voluntary integration. This means that they are free to design entrance criteria for students. In some districts, there are long waiting lists to enter magnets. Unfortunately, this undermines the exercise of parental choice and invites criticism of these programs as elitist.[49]

Programs for the Gifted

High schools, colleges and private organizations in California offer a variety of special programs designed to help gifted and talented students reach their potential. Some of the options include:

- **Advanced Placement (AP).** These courses enable high school students to take college level classes at their high school and receive college credit. To receive college credit for an AP course, students must pass a special subject matter examination.

- **Simultaneous College Enrollment.** These options enable gifted students to take classes at a college campus while in high school and receive credit for graduation and college credit.

These and other options provide opportunities for gifted students to develop their talents at rates that are more advanced than most high school courses.

Employment related education programs for high school age youth are offered primarily through high school-based vocational classes and Regional Occupational Centers/ Programs.

Employment Related Education

According to state law (*Education Code* Section 51004), high schools have a responsibility to prepare students for entry level employment. The trend toward a more academic curriculum, coupled with uncertainty about the effectiveness of vocational programs in high school, have reduced emphasis on employment preparation in the high school program. Employment related education programs for high school age youth are offered primarily through high school-based vocational classes and Regional Occupational Centers/Programs:

- **Vocational Education.** High school based vocational classes provide career awareness, career guidance and skill training for entry level jobs through courses offered as electives to high school students.[50] Vocational courses can be grouped into three general areas: Business education, vocational agriculture, and industrial arts. Besides course instruction, vocational programs may include work experience, career counseling and student organizations. Student organizations, such as Future Farmers of America, offer students practical experience in vocational areas, such as vocational agriculture, mentoring by adults in the community, and opportunities for student leadership.

  Most funding for high school vocational courses is by standard ADA. They also receive federal *Carl Perkins Vocational Education Act* funds.

  The declining emphasis on employment preparation in standard high schools is evident from the steady drop in vocational course enrollments in the 1980s. Course enrollments in "Voc Ed" overall have decreased 52 percent between 1982–84 and 1988–89.[51]

[49] ***Restructuring California Education***, page 102.

[50] Although it used to be common for high schools to offer a vocational track of courses, today that practice has all but disappeared.

[51] PACE, ***Conditions of Education in 1989,*** page 69. The percentage of high school students who took one or more voc ed courses dropped from 51 percent to 40 percent between 1983–84 and 1988–89. The number of vocational course enrollments dropped by 52 percent in the same period. In other words, fewer courses were offered, fewer students enrolled.

Aside from shrinking participation, vocational education has been hampered by its inability to measure program success in a climate of increased demand for accountability. There have been no statewide outcomes available to assess the success of vocational education in preparing students for work. The quality of the followup studies done on vocational education graduates has been questioned.[52] A number of studies and reports have criticized traditional high school-based vocational education for its lack of direct connection to employers, lack of up-to-date equipment, lack of current teacher training, and lack of consistent quality.[53]

- **Regional Occupational Centers/Programs ROC/Ps).** ROC/Ps were established in 1965 to provide vocational and technical education to high school students and adults. ROC/Ps are organized and run by County Offices of Education, single school districts, or several school districts in a joint powers agreement. Regional Occupational Centers/Programs offer entry-level job training, counseling and career guidance, and work experience to students over age 16 enrolled in grades 11 or 12. Up to 3 percent of an ROC/P's enrollment may be students under 16 who are assessed as being at risk of dropping out (*Education Code*, Section 52300 *et seq.*). ROC/Ps also serve an increasing number of adult students.

Participation in employment related programs within high schools appears to be declining as the emphasis on college preparation increases.

ROC/Ps are organized in a variety of ways. Classes may be in a separate center and enroll students from surrounding high schools. Another approach is "community classroom," where students are jointly supervised by ROC/P teachers and work-site supervisors at local business sites. Classes may also be taught onsite at local high schools by ROC/P instructors.

These programs are funded on the basis of Average Daily Attendance (**ADA**) of the students enrolled multiplied by the high school revenue limit per ADA for the district or county office operating the ROC/P. ROC/P ADA is defined as student instruction for 180 minutes per day. In recent years, the state has limited growth in ADA for ROC/Ps. In 1988–89, the statewide funding for all ROC/Ps was $222 million.

Total state ROC/P average daily attendance (**ADA**) for grades 11–12 has fluctuated considerably during the 1980's between a low of 49,357 to a high of 62,947. In recent years, ADA has stabilized around 60,000. The number of students enrolled in ROC/Ps is much greater (5–6 times) than the number in average daily attendance because many students attend part time.

There are no widely accepted consistent outcome measures to assess the performance of ROC/P programs. ROC/P courses are reviewed every two years by the ROC/P governing board to assure that they meet documented labor market demand and are not duplicative of other training programs in the area. However, the data required for such review have not been developed.

To summarize, participation in employment related programs within high schools appears to be declining as the emphasis on college preparation increases. The ROC/Ps are maintaining their enrollments of high school students and addressing a demand in the student population for entry level training. However, vocational education programs are shrinking.

[52] Jon Ebeling, "Resources and Options for Follow Up Data," Pacific Management and Research Associates, Sacramento, November 1986.

[53] David Stern, *et al.*, "One Million Hours A Day," University of California, Berkeley, California Policy Seminar, June 1985; and ***Training Tomorrow's Workers***, Assembly Office of Research, Report 971–A, Sacramento: June 1983.

Special Education

Special education programs in high schools offer special instruction and services to identified students with exceptional needs. Exceptional needs may include a physical disability, cerebral palsy, blindness, deafness, or a learning disability. Special education programs are designed to allow the student with a disability to participate to the fullest extent possible in the regular school program.

Public schools are required by state and federal law to provide education and related services to individuals with exceptional needs (*U. S. Public Law 94–142* and *California Education Code*, Sections 56000 *et seq*). School staff, in consultation with parents develop an annual Individualized Education Plan (**IEP**) for students with exceptional needs. The IEP spells out the objectives for the student and the services the student will receive.

Special education programs are designed to allow the student with a disability to participate to the fullest extent possible in the regular school program.

In California, special education is delivered by school districts and County Offices of Education. These services are organized into Special Education Local Plan Areas (**SELPAS**). Instruction is offered in public schools and in some cases, special centers devoted exclusively to special needs students. Four distinct program settings are offered in special education:

- Resource Specialist Programs (**RSP**)
- Designated Instruction and Services (**DIS**)
- Special Day Classes
- Nonpublic School Programs

Of the total K–12 enrollment in 1988–89, 9.8 percent or 128,000 were enrolled in special education.[54] Resource Specialist Programs (**RSP**) is the largest special education program at the secondary level.[55] Special Day Classes constitute the second largest level of participation, and Designated Instruction and Services (**DIS**) is ranked third.

Funding for K–12 special education comes from federal, state and local sources. Of the $2.2 billion expended on K–12 Special Education Programs in 1989–90, federal funds from *Public Law 94–142* make up 8.1 percent, state funds contribute 71 percent, and local funds make up 18.3 percent

Special education is a well-established option within the traditional high school. However, it is not well-integrated with other high school programs, or "options." Despite the effort to "mainstream" special education students into regular programs, many "mainstream" and "alternative" programs designed to meet special needs students are not accessible to special education students because of categorical eligibility requirements.[56] This example illustrates fragmentation in the current secondary options and the need for more holistic thinking about educational options.

[54] Analysis of the Budget Bill for 1990–91, page 884 and Conditions of Education 1989, page 17.

[55] California Department of Education, Office of Special Education and ***Conditions of Education in 1989***, page 17.

[56] Interview with Deborah Jay, Stanford Research Institute and Diane Zigua, Principal of Independent Study High School, Hacienda La Puente Unified School District.

Summer and Intersession School

Summer and intersession school classes are taught by high school faculty during the summer or between school sessions. This program allows high school students to make up failed courses, take required courses or electives, or select a particular teacher.

Since 1984–85, summer school enrollments have steadily increased both in absolute and relative terms. Most of the growth has occurred in the core academic areas. Despite the steady growth in enrollment, high school summer school is still less than half of its pre-*Proposition 13* level.

Before *Proposition 13*, 40 percent of high school students took a variety of academic vocational, and arts classes in summer school. After the passage of *Proposition 13*, summer school was cut to one percent of its former volume. This coincided with a sharp drop in the statewide high school graduation rate. Since 1983, the state has gradually increased funding for summer school and added more reimbursable categories of summer courses. Beginning in 1989–90, districts could claim reimbursement for courses in core academic subject areas for up to 7 percent of their total school enrollment. Districts are reimbursed on an hourly instructional rate for 120 hours of instruction.

Summer and intersession school adds needed flexibility to an otherwise rigid way of scheduling secondary education.

There are no outcome measures that assess performance of summer and intersession school separately. However, it can be said that summer and intersession school adds needed flexibility to an otherwise rigid way of scheduling secondary education. Participation in this "option" has grown without the benefit of an overall conceptual framework or strategy in response to a need for more flexibility.

Migrant Education

The mission of Migrant Education is, "to provide leadership and supplementary educational services to help migrant students be successful in the regular core program."

Migrant Education is a federally funded program authorized by the *Education Consolidation and Improvement Act* of 1981. The California Department of Education administers the program. Services are delivered through 13 state mandated regional service centers and five directly funded school districts. The regional service centers ensure that services are provided to students in over 400 school districts through service agreement contracts.[57]

Objectives of the program include improving standardized test scores in reading, mathematics and language; increasing students' grade point averages; increasing the number of students passing proficiency tests and those entering college; and decreasing the migrant drop out rate.

The basic strategies of Migrant Education include early intervention in the form of preschool programs, creating a positive school climate, developing high student expectations, providing a broad range of programs, and teaching parents to work more effectively with their children.[58] Migrant Education works to get students into the core curriculum through programs such as Portable Assisted Study Sequence (PASS), Mini-Corps, Migrant Education Resource Centers, Program Improvement Projects, and MENTE/Yo Puedo.

[57] California Department of Education, Migrant Education, Office Summary, July 1988.

[58] *Ibid.*

The Migrant Education Offices in California reported that for the 1989–90 school year, the total number of migrant students (including eligible 3 and 4 year-olds and 18–21 year-old nongraduates) was 195,000. Male and female students were equally represented. According to 1987 profiles, 87 percent were Hispanic; 5 percent Asian or Pacific Islander; one percent were white—not Hispanic; less than one percent each were Native American and black—not Hispanic; and 6 percent were "not reported."

The Migrant Education program claims significant successes. It estimated that in the mid-1970's, 90 percent of migrant youths dropped out before graduation but a 1987 study showed that 49 percent of migrant students in seventh grade in 1980–81 had graduated in 1986. However, the dropout rate data among migrant students is controversial. Figures range from a low of 37 percent to a high of 84 percent.

The California Migrant Education Office estimated that migrant students are increasing at the rate of 10 percent per year. It is therefore clear that California will be forced to deal with a growing at risk population.

Concurrent enrollment is a program that enables high school students to enroll in adult education classes while they are still in high school.

Bilingual Education and LEP Programs

The number and diversity of high school Limited English Proficiency (LEP) poses a special challenge to educators in California. LEP students speak a wide number of languages, enter the country with varying levels of previous schooling and immigration experiences.

Secondary schools' programs for LEP students vary considerably around the state. Common elements include ESL classes, academic content classes taught in Sheltered English, academic content classes in the primary language of the student, newcomer classes of that provide orientation, instruction and support services to secondary LEP students.

ESL is offered at varying levels of difficulty, and students progress through the classes as they master English. It is common for new immigrant LEP students to enroll in at least two full ESL classes per day. Sheltered English is a technique for teaching students whose English does not enable them to profit from English-only instruction. Sheltered English techniques work best with subject matter that is less language-based, such as math, science, art, and music. Probably the most difficult material to "shelter" is purely language-based social studies. Tutorials and study groups are common devices used by secondary schools to assist LEP students.

Little is known about the scope, quality and performance of programs for secondary LEP students in the state. An independent evaluation of programs for LEP students in the state is being conducted for the state by Berman, Weiler Associates. One element of the study is an examination of secondary programs for LEP students.

Adult Education

Concurrent enrollment is a program that enables high school students to enroll in adult education classes while they are still in high school. The students considered "concurrently enrolled" in high school and adult school must attend their high school for at least four hours per day. The purpose is to help them meet graduation requirements or to supplement their high school program. Concurrently enrolled students usually attend their high school classes during

the day and adult school classes in the afternoon, the evening, on Saturdays or during the summer.

Concurrent enrollment resembles summer and intersession school in that it adds flexibility for students and has grown recently. Concurrent enrollment extends the instructional day and offers additional opportunity for counseling. Most concurrent enrollment is in basic skills courses, ESL, and Vocational Education.[59]

The number of high school students concurrently enrolled in adult classes increased sharply in the 1980's, providing yet another indication of the need for alternatives to the standard 5–7 period day high school program. In 1980, less than 7,000 grade 9–12 ADA were claimed for concurrent enrollment. In 1987, the number had tripled to 23,940 in average daily attendance.[60] In 1988–89, the number of 9–12 concurrently enrolled students in average daily attendance declined slightly from 1987–88 levels. The unduplicated count of students concurrently enrolled is nine to ten times higher because ADA is a full time equivalent measure and concurrently enrolled students do not attend adult classes full time.

The number of high school students concurrently enrolled in adult classes increased sharply in the 1980's, providing yet another indication of the need for alternatives to the standard 5–7 period day high school program.

It should also be noted that many high school students are concurrently enrolled at community college campuses. For example, in 1987 about 2.5 percent of community college students were under age 17. Many of these high school-age students were pursuing advanced courses, and others remedial and basic education.

There are no outcome measures to judge the success of concurrent enrollment separately. The need for more flexibility for high school students to meet increased graduation standards and enroll in vocational classes has fueled the increase in concurrent enrollment. Among other things, concurrent enrollment should be viewed within the overall high school context as a means to meet the acute need of students who have either fallen behind or wish to take electives.

Dropout Prevention and Recovery Programs

Senate Bill 65 (Chapter 1431 of the Statutes of 1985), was enacted by the California Legislature to reduce the high school dropout rate by fostering school success for at risk students. One element implemented in high schools is the Motivation and Maintenance Program. This features an Outreach Consultant that provides dropout prevention and recovery, and coordinates school and community resources to meet the needs of at-risk students.

No outcome information is available on the success of the outreach consultants funded by *Senate Bill 65*, however, an independent evaluation is in progress and the results are due to be reported in early 1991.

Senate Bill 65 is one of the few state programs enacted in the 1980's that addresses the massive dropout problem in the state. It is a small program and it has never been expanded beyond its initial 50 high schools and their associated K–8 feeder schools. While the program has many promising elements, it appears to be another example of incomplete and fragmented application of educational approaches within today's high schools.

[59] California Department of Education, "Report Required by Supplemental Report of the 1988 Budget Act," November 27, 1989, pages 5–6.

[60] ***California Adult Education System***, Pacific Management and Research Associates, February 9, 1989, page 48.

The last option within today's high school is "alternative" education. This option has many dimensions. It is elaborated in the next section.

3.4 Alternative Education and Other Options

This section focuses on the "alternative education" programs and schools administered by the Educational Options Unit within the Youth, Adult and Alternative Educational Services Division (YAAES) of the California Department of Education.[61]

In the 1988–89 academic year 627,659 young people were enrolled in "alternative education," nearly 14 percent of the 4,618,120 total enrollment in grades K–12.

California "alternative education" programs and schools encompass a wide variety of structures, styles, and educational policies designed to appeal to and serve the needs of students with different personal needs, learning styles and temperaments. Some alternatives are highly structured and highly disciplined, while others are more "student-centered," flexible and open. Some offer innovative pedagogical strategies; others follow traditional educational structures and curricula. Most alternative programs are selected voluntarily by students and their parents because they represent an appropriate strategy to gaining a quality education. A few programs, like continuation or correctional education, are options for the school system but may be mandatory for designated students. Organizational structures include separate stand-alone schools, schools-within-schools, schools-without-walls, programs, and classes.

Current data collection procedures make it difficult to pinpoint the number and nature of educational options programs and schools. Available data indicate over 1,000 programs and schools are administered by the Educational Options Unit within the California Department of Education. In the 1988-89 academic year 6356 total staff were employed in "alternative education." In the 1988–89 academic year there were 416 "alternative" programs serving 309,783 pupils and an additional 752 alternative schools with an enrollment of 317,876 students. Thus 627,659 young people were enrolled in "alternative education," nearly 14 percent of the 4,618,120 total enrollment in grades K–12. While the number of programs has remained more or less constant, hovering around 400, the number of schools has increased from 659 in 1983–84 to 752 in 1988–89 **(Exhibit 3.5).**[62]

The mission statement of Alternative Schools includes these goals: develop positive values, motivate learning, individualize programs, develop participative program design, and develop socially relevant education.

The *California Education Code* has a number of sections that provide umbrella authorization for a variety of educational options programs and schools. Section 51225.3a details the specific course work necessary for a high school diploma, standards that apply equally to "alternative education" programs and schools. Section 51225.3b, allows school districts with alternative means for students to complete the course of study to substitute "a practical demonstration of skills and competencies, supervised work experience or other outside school experience, interdisciplinary study, independent study, and credit earned at a postsecondary institution. Requirements for graduation and specified

[61] The Educational Options Unit was formerly known as the Alternative Education Unit.

[62] It is important to note that the programs and schools reported in these data are not always classified in ways that fit within the program areas controlled by Educational Options Unit. It is particularly noteworthy that the classification "Alternative High School" may include magnet schools and other alternatives that are not necessarily under the jurisdiction of the Educational Options Unit. Further, many programs such as Opportunity Education and Court Schools that are under the Educational Options Unit are not likely to be reported as alternative programs and schools.

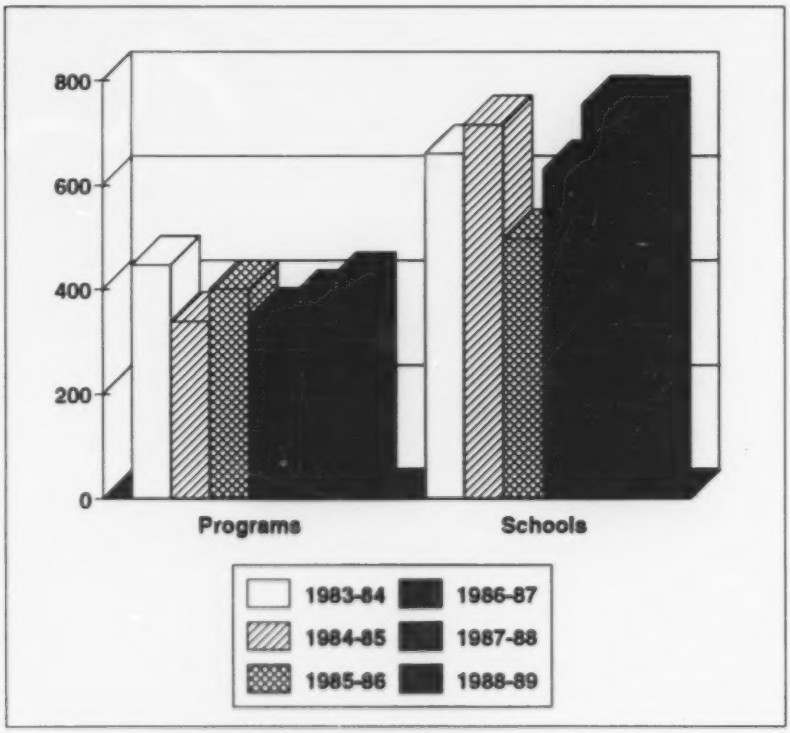
alternative modes for completing the prescribed course of study are required to be made available to pupils, parents, and the public."

The *Education Code* has a detailed chapter on "Alternative Schools" in the section describing Experimental School Programs (Sections 58500–58512). In general, Educational Options Schools are distinguished from "regular" schools in that (1) "teachers employed and students enrolled in the alternative school shall be selected entirely from volunteers,"[63] and (2) the schools subscribe to the educational philosophy set forth in the *Education Code*, section 58500.

To some, the name "alternative" may suggest a parallel education system, something outside the mainstream. Nothing could be further from the truth. Educational options are one of many sub-systems within California's enormously complex education system (**Exhibit 3.1**). Students in educational options are not consigned to some kind of educational ghetto, nor are they restricted to a particular program. Indeed, in many cases there are long waiting lists to enroll in these programs. Some of these programs include Gifted and Talented Programs, Special Education, Community-Based Education, Independent Study, Continuation Education and a variety of curricula and extracurricular programs.[64]

Exhibit 3.5
NUMBER OF EDUCATIONAL OPTIONS PROGRAMS AND SCHOOLS, CALIFORNIA 1984–89

The number of educational options programs has remained constant, while the number of education options schools has grown.



Source: California Basic Education Data System.

[63] *California Education Code*, Section 58503.

[64] One exception to this rule is that "Not more than 10% of the pupils enrolled in an opportunity school or program, or a continuation high school, shall participate in an independent study program..." Independent study is also a restricted option for students defined as having "exceptional needs." Cf. the *Education Code* Sections 51745(b) and (d).

Educational options programs and schools are typically funded by the same mechanisms as traditional schools. Funds are obtained from local property taxes, and the state General Fund. State funds make up the difference between district property tax revenues and its revenue limit per ADA.

This section reviews seven of the ten strategies and programs administered by the Educational Options Unit of the Youth, Adult, and Alternative Educational Services Division (**YAAES**). These seven strategies and programs include:

- Continuation Education
- Independent Study
- Opportunity Education
- Partnership Academies
- Court and Community Schools
- Teenage Pregnancy and Parenting Programs
- Foster Youth Services

To some, the name "alternative" may suggest a parallel education system, something outside the mainstream. Nothing could be further from the truth.

Three other programs administered by YAAES, but *not* discussed in this chapter, include: *Senate Bill 65* Educational Clinics, Employment Training Panel (omitted because the program serves mostly an adult population), and Year-round education (which is not a program *per se*).

Each of the first seven programs and strategies will be summarized in terms of its mission, organization, activities, funding, size and characteristics of the student population, and impacts on participants.

Continuation Education

Continuation education is designed to meet the needs of 16 and 17 year-olds who have not graduated from high school, are not exempt from compulsory attendance, and are deemed to be at risk of dropping out. The curriculum is broad based and allows individualized instruction, work-study programs, and personalized guidance and counseling.

Key characteristics, trends and impacts of Continuation Schools are as follows:

❑ **Organization.** Local school districts administer continuation schools under oversight from the state Educational Options Unit. Continuation schools or programs must operate a minimum of 175 days a year and at least 180 minutes a day. Students must attend at least 15 hours a week (four hours if they are involved in a work program).

Continuation programs accept or release students at any time in the academic year. One result of this is that enrollments tend to jump toward the end of the semester as students discover that they are not doing well in comprehensive high schools and transfer.[65] Another result is that actual

[65] There is a bureaucratic effect of this as well. Feeder schools try to hold on to their enrollments until after the Period 1 (**P1**) enrollment reports are completed and submitted to the State in October. These reports on staffing and enrollment are used to determine staffing limits for the following year; thus they are critical planning documents. After the staffing reports are submitted may students are released to leave comprehensive high schools for continuation programs. Continuation educators complain that this practice is potentially harmful to the students. For example, many with serious attendance problems are allowed to continue without assistance or remediation. They argue that the sooner they arrive in the supportive alternative environment the more effective the program will be.

enrollment at specific points in time may be far below the number funded. At certain times during the year the classroom teacher will need, for example, texts and desks for many more than 300 students (median number).

- **Education Activities.** California *Senate Bill 813* (1983) required all students to meet the minimum graduation requirements established by the local governing board. All continuation programs must therefore educate to these core proficiencies. Continuation students are provided ongoing personal guidance, occupational guidance and help in planning for future employment. In addition, continuation schools must designate one or more persons to coordinate the student's school experience with the home, employment, and other agencies. Continuation schools allow students to participate in other educational programs. For example, students may enroll in regional occupation centers or programs (**ROC/P**), concurrent enrollment in adult schools, community colleges, work experience programs, pregnant minor and pregnant and parenting teen programs. Finally, up to 10 percent of comprehensive high school enrollment can take the form of independent study.

Continuation enrollments tend to jump toward the end of the semester as students discover that they are not doing well in comprehensive high schools and transfer.

- **Funding.** The districts may claim full apportionment for students who are unemployed and are full-time students if they attend fifteen hours a week. Partial appropriations may be claimed for students enrolled in an approved work experience program. Continuation students may be simultaneously involved in a variety of other programs that do not bring additional funds to the school or programs.

- **Participant Characteristics.** In 1989, there were 115,000 students in 440 continuation schools. Almost 10 percent of high school students attended continuation classes. The schools range in size from 20 students to 800 students. Only three of California's 58 counties do not offer continuation education. In 1987–89, the vast majority of students were age 16 (40.6 percent) or 17 (38.5 percent). Of the remainder, 7.6 percent were under age 16, 10 percent were 18, and 2.5 percent were over 18. Continuation schools have slightly higher black, white and Hispanic populations than comprehensive high schools. Asians are substantially underrepresented.

- **Impacts and Performance.** Continuation programs are expected to teach the core curriculum courses and only to grant diplomas after the students achieve the standard requirements for graduation. Three methods have been developed to give students credit for course-work:

  - **Competency-based system** allows students to integrate life or survival skills into the basic skills curriculum. Students receive credit by demonstrating their knowledge about course content and competencies and are not required to spend a specified amount of time in class.
  - **Productive hour system** allows students to receive one semester hour of credit for each 12–15 hours of productive course work or its equivalent. This method is hampered by its reliance on "seat-time," use of standard texts, and tests—the same procedures that led many continuation students to abandon the comprehensive high school in the first place.
  - **Unit contract system** requires students to complete the course content according to a prearranged schedule. Consequently the need for a detailed time accounting procedure is eliminated.

Overall performance can be viewed in terms of attrition and completion rates. Attrition rates are much higher than for the comprehensive high schools. About 44 percent of all continuation education students leave prior to completion. Of those who left continuation sites during academic year 1986–87, 63.7 percent transferred to other educational programs, 21.1 percent left for legal reasons; and 15.2 percent left for noneducational reasons. The data show that the older a pupil is, or the fewer credits he or she has, at entry to continuation program, the less chance there is of completion.

If a goal of continuation education is to enhance the students' employability by allowing for work experience, the data suggest that this function is being fulfilled for about one quarter of the student population.

Independent Study

The primary purpose for independent study is to offer a means of individualizing the educational plans of pupils.

Independent study is open to any elementary or secondary student who is likely to achieve more in an individualized learning situation.[66] In 1988–89, independent study represented nearly one percent of the total ADA generated in California—encompassing 728 school districts and generating a total of 36,494 units of ADA.[67] The primary purpose for independent study is to offer a means of individualizing the educational plans of pupils whose needs may be met best through study outside of the regular classroom setting.[68] Independent study must also be consistent with the district's course of study—the actual curricula are at local discretion.

Because independent study is an *educational strategy*, not a program, it can be used in comprehensive schools as well as alternative schools and programs.[69] In some cases, district independent study program centers have grown into alternative high schools or K–12 alternative schools. In the case of opportunity schools or programs and continuation schools, a limit has been established—no more than 10 percent of students can be enrolled in independent study.

Key characteristics of Independent Study are as follows:

- **Organization.** Most independent study alternatives are initiated by the school district after consideration of local needs, resources, and characteristics. Under most circumstances, neither students nor teachers may be assigned to independent study involuntarily. Because independent study requires close working relationships between teachers and students, it is vital that programs be staffed appropriately. In 1988–89 the total enrollment in independent study was 826,950, with 1,379 independent study teachers. The Auditor General's report found student teacher ratios that ranged from 16 to 1 (similar to standard classrooms), to one atypical case of 156 to one.

- **Educational Activities.** Students in independent study may work on their own, in a group, in the classroom or outside the school. Study may include taking courses in a high school, a college or a university extension course.

[66] Note that independent study is not an option for students who have been expelled or suspended from the regular program, it is an alternative to the regular classroom.

[67] Analysis of the 1989–90 Budget Bill: Report of the Legislative Analyst to the Joint Legislative Budget Committee, page 709.

[68] Revised Independent Study Operations Manual, Prepared by the California Department of Education and distributed by The California Consortium for Independent Study, February 1989, page I-1.

[69] In practice, comprehensive schools have not taken advantage of the opportunities and flexibility offered by independent study. Use of the tool of independent study has been pioneered in educational options.

Credits may also be gained for work in volunteer community organizations, employment, travel, or other types of community involvement. Even if independent study students do not participate directly in comprehensive school, they are entitled to all the services a comprehensive school provides—both academic and counseling services.[70]

- **Funding.** Independent study is funded through the regular revenue limit based on ADA. Once the student's independent study agreement is signed the document becomes active. The student submits work to the teacher who converts the work into units of time—school days. After the student has satisfactorily completed the project, the time is recorded as if the student had been physically in attendance.[71] Each local school claims revenue from students' attendance based days computed from completed work. School work above the minimum day (240 minutes) does not generate additional revenue, but it does generate needed academic credits.[72]

  Several issues have been raised regarding independent study funding.[73] The problem is that districts receive the same funding level for a student who only requires one meeting a week with a teacher to learn the material as for the student who requires four meetings a week. Surplus revenue from this structure is frequently used to fund other district programs, rather than to build a quality independent study alternatives.[74] Some districts spend only a fraction of the earned revenue on independent study. The Auditor General's report estimated that the amount spent ranged from less than 25 percent of revenue received to more than 100 percent. *California Senate Bill 1563*, Chapter 1089, Statutes of 1989, works to identify and eliminate most abuses.[75]

- **Participant Characteristics.** Over the past four years independent study ADA has increased by about 25 percent a year (10 percent growth during 1989–90). The number of districts offering independent study has increased from 452 to 672. Demographic information on age, sex, race, or socio-economic status are not collected at the state level.

- **Impacts and Performance.** Neither the *Education Code* nor Title 5 of the *California Administrative Code* contain any requirements for annual evaluations or reviews of independent study. However, virtually all independent study is offered as an alternitive and all alternative schools should be evaluated anually under *Education Code 58500.* Very little data are available on the impacts and performance of independent study statewide.[76]

---

[70] Analysis of the *1989–90 Budget Bill*: Report of the Legislative Analyst to the Joint Legislative Budget Committee, page 710.

[71] Revised Independent Study Operations Manual, Prepared by the California Department of Education and distributed by The California Consortium for Independent Study, February 1989, page II-2.

[72] ***Ibid.***, page VII-2.

[73] Analysis of the *1989–90 Budget Bill*, ***op. cit.***, page 710.

[74] The budget analysts recommend that the California Department of Education take two steps: (1) establish standards governing student teacher ratios, the hours that students meet with certified teachers, the educational equipment provided; and, (2) limit the amount of funding that independent study programs may claim to actual costs plus 5 percent for administration.

[75] Despite these requirements, the Legislative Analyst's report for 1989–90 revealed some abuses. For example, very high student teacher ratios, and lack of academic and counselling services. However, this should not be taken as an indictment of this educational strategy.

[76] The only job placement data comes from the annual report of El Sereno High School's Center for Independent Study. Without making claims of the representativeness of this program, some of the data are instructive. For example, 75 percent of the 1989 graduating seniors said that without independent study they would not have graduated that year. When asked about employment, 71 percent reported they had a job. Slightly more than one-fifth planned to go to work without further postsecondary education, and 3 percent planned to enter the armed forces.

As with all programs there are differences between goals or mission statements and how programs actually operate. The Legislative Analyst's report highlighted several problems with independent study. Some districts were using independent study as a dumping ground by routinely transferring students with discipline problems to independent study, without assurances that these programs could meet the needs of these students. This, however, is an illegal practice under the revised statute.

Such problems draw attention to the broader issue. Little data has been collected to allow either a formative or summative evaluation of these programs. It is not known who is served, what happens in these programs, or the outcomes of this educational strategy.

Opportunity Education

Opportunity schools, initiated in 1977, are not purely "optional." Parallel to compulsory continuation education, youths with attendance or discipline problems are assigned to opportunity schools. The goal is "rehabilitation" by providing a supportive environment with specialized curriculum, instruction and guidance to aid students in resolving their difficulties. The primary focus is behavioral, not instructional. The objective is to return these student to the regular classroom. Key characteristics of Opportunity Education are as follows:

- **Organization.** Opportunity schools fall under the Educational Options Unit of the YAAES division and are under the control of local school districts. Other than the services described in legislation, there are no formal staffing requirements. In a good program the teacher would be self-selected and specifically interested in working with a "difficult" group of students. Badly staffed programs may function as a "dumping ground" for teachers in spite of the fact teachers may only be assigned voluntarily.

- **Educational Activities.** Services used for apportionment purposes may include: crisis counseling; specialized services for substance abuse; suicide prevention; services provided for parent and school staff education; and specialized instructional materials.[77] In addition, many teachers hold frequent counseling sessions with students, parents and guardians. Teachers also work within the school to make it possible to return students to the mainstream classroom.

- **Funding.** Students attend class for at least one period, and not more than 180 minutes per day. One unit of ADA equals 405 attendance hours. Studies suggest that two, and perhaps three or four students are necessary to generate one unit of ADA.[78] Cost per ADA averaged $3,850 per student in 1986–87. In addition, schools received $425.00 in supplemental funding per ADA for each student in grades 7–9 enrolled in opportunity education.[79] A new funding stream for programs aimed at students, grades 7–9, has led to a large increase in the number of students enrolled from this age group.

  Funding data are available only for students in grades 7–9 who are eligible for supplemental funding. These data show that between 1986–87 and 1988–89, the number of school districts providing Opportunity Programs

[77] "Guidelines for Opportunity Programs and Classes" California Department of Education, Sacramento, September 1989.

[78] "Evaluation of Incentives Provided to Increase the Availability of Opportunity Classes and Programs in Grades 7–9, Inclusive," 1987, page ii.

[79] *Ibid.*

increased from 2 to 120 and that ADA for these programs increased 334 percent.[80]

- **Participant Characteristics.** No studies have been done to describe the actual staffing, turnover rates, activities or services provided. Further, very little information is available about the population being served. Enrollment is unknown. It is estimated that ADA in 1988–89 was 3,270. If the estimate of three actual students adds up to a single unit of ADA, then as many as 10,000 children passed through opportunity programs each year. Anecdotal evidence suggests that the population is mostly male.

Emphasis on ADA focuses attention on the custodial aspects rather than educative and rehabilitative goals of opportunity education.

- **Impacts and Performance.** There are no objective ongoing studies of the program's effects. Because the goals of behavioral change are more difficult to operationalize or measure than, for example, academic achievement, the assessment of Opportunity School performance will require a sophisticated and sensitive longitudinal research design. A recent study made the point that "Emphasis on ADA generation focuses attention on the custodial aspects of education rather than on the educative and rehabilitative goals of opportunity education."[81]

Opportunity school is *not* intended to be a "dumping-ground" for unruly junior high school kids. Still, some opportunity schools interpret the mandate to return students to their regular classroom as an invitation to make opportunity school into a form of punishment.

Partnership Academies

Partnership Academies, developed in the late 1970s, are dropout reduction programs targeting students with demonstrated potential whose attendance, deportment, or academic performance suggests that they are "at-risk" of dropping out. The program seeks to counter forces leading students to drop out by providing specific job related training, and ensuring that graduates obtain employment upon graduation. Local business persons are directly involved in the programs as mentors.

Key characteristics of Partnership Academics are as follows:

- **Organization.** The academies are partnerships involving corporate sponsors, the California Department of Education (CDE), and local school districts. Each Academy is organized as a school-within-a-school (SWAS). Class size is kept small, typically around 20 students. Academies are funded by categorical grants administered by the local school district. Teachers must freely choose to work in Academies.

- **Educational Activities.** Academies provide an enhanced high school curriculum. The program provides high school education in the three core areas and a special job training course tailored to local industries and job opportunities. Alongside academic classes, students take a technical "lab" course designed to provide them with job skills that hold the promise of local employment upon graduation. "Hands-on" experience in job-related categories is emphasized. Intensive career counseling by teachers and local business mentors is also provided. Each Academy is responsible for placing students in jobs during the summer following grade 11, and each 11th grade

[80] The number of all students in opportunity classes, grades 1–12, is much larger.

[81] "Evaluation of Incentives Provided to Increase the Availability of Opportunity Classes and Programs in Grades 7–9, Inclusive", 1987.

student is matched with a business mentor. Grade 12 students are provided with a work-experience opportunity that can lead to permanent employment upon graduation.

- **Funding.** The planning grant for an academy is $15,000. Operational funds are based on a reimbursement scheme covering rules for student eligibility and matching support from the school district and the business community. The initial grant from CDE must be matched by both the local school district and the participating company. The program is intended to be performance-based—the amount of initial state funds is determined by the number of students demonstrating satisfactory attendance and progress. Student performance drives continued funding. State startup funding is provided on a categorical basis. Ongoing program funds are ADA based, with a CAP on the number of students that may be served in any one program.

- **Participant Characteristics.** In 1981, two Academies opened with a total of 91 students. By 1988 there were 11 programs with 846 students. The program continues to grow rapidly. In 1987–88, 52 percent of the 846 students were male and 48 percent female. The race/ethnicity breakdown was: 5 percent Asian, 26 percent black, 29 percent Hispanic, 36 percent white and 3 percent other. More than 20 percent reported that the adults in their household had been unemployed over the last year.[82]

- **Impacts and Performance.** There is no ongoing evaluation strategy. However, unlike the other programs in this chapter, Academies have been extensively evaluated by outside observers.[83] An evaluation by Policy Analysis for California Education (**PACE**) matched the Academy programs to similar classes in a comprehensive high school. Academy students did much better in terms of high school completion and positive transfers. The PACE Report stated that the dropout totals across the three years were 7.3 percent for Academy students and 14.6 percent for the comparison group. This suggested that Academies could reduce the dropout rate by about half, and the attrition rate by about one third.[84] PACE evaluated Academy students six months after they completed the program and found no significant differences between Academy graduates and the comparison groups.

Partnership Academies offer a model of intervention that appears successful. Undoubtedly much of the success can be traced to an innovative program design that involves members of the local business community in the education process. A critical second factor is the focus on employability and the real world meaning of educational success. However, several other factors must be taken into account. It is well known that small class size and individual attention has a crucial influence on student success, and the small class size of Partnership Academies is an important factor that *by itself* could have beneficial effects if it were replicated throughout schools in California. Also, this program has been motivated by a committed group of educators and business persons who put enormous amounts of talent, time, and effort into making Academies work. This spirit is often difficult to replicate.

---

[82] Charles Dayton, Alan Weisberg and David Stern, California Partnership Academies: 1987–88 Evaluation Report, PACE (Policy Analysis for California Education), Policy Paper No. PP89-9-1, September 1989, pages 130–131.

[83] The original Peninsula Academies were evaluated by The American Institute for Research in Palo Alto. *Source: Cf.*, Dorothy J. Reller "The Peninsula Academies: Final Technical Evaluation Report," American Institute for Research in the Behavioral Sciences, December 1985, and Dorothy F. Reynolds, "A Longitudinal Study of the Graduates of the Peninsula Academies: Final Report," American Institute for Research, February 1987.

[84] Charles Dayton, *op. cit.*, September 1989, pages 143-144.

Court and Community Schools

Community Schools are maintained by the joint authority of the County Board of Education and County Board of Supervisors in cooperation with the Probation Departments. Started in 1971, Community Schools were institutions developed not only to protect the general student population from contact with youthful offenders,[85] but also to serve the high-risk students who were on the verge of becoming offenders. These groups are separated from mainstream students. Community schools were established to meet the needs of students referred by the local school district or the juvenile justice system. These schools are seen as the final educational opportunity for delinquent youth or youth-at-risk who have exhausted their educational options at the local educational agencies. In 1989 there were forty programs in the state.

Court and Community Schools are seen as the final educational opportunity for delinquent youth or youth-at-risk who have exhausted their educational options at the local educational agencies.

The overall goal of court and community schools is to provide the student with the academic and life skills allowing them to return either to their previous educational institution or to the world of work. Key characteristics of Court and Community Schools are as follows:

- **Organization.** The professional organization of Juvenile Court and Community Schools Administrators of California (JCCSAC) created a task force that established the Standards Handbook that guides these programs. Teachers must possess a valid credential and have a special "fit" that allows them to perform in difficult situations.[86] In addition to regular teaching staff, programs have a probation officer on site at least part time.

- **Educational Activities.** Court and community schools are held to the same academic standards as other California high schools. While striving for the same core standards, court and community schools have adopted many of the specialized and individualized methods of instruction used in other educational options programs. Their aim is to establish a learning centered environment to aid students in returning to their local districts. Program goals are a mix of affective, cognitive, and social skills—academic, vocational, social, problem-solving and personal development.[87] Typically classes are small with emphasis on individualized curricula, counseling and a supportive student centered environment. In many cases students write and work to their own educational contracts. Students also frequently have part-time jobs or are involved in work experience programs.

- **Funding.** In 1988–89, 40 of California's 58 counties received their court school revenue limit for attendance in community schools. Referring agencies included 1,018 local districts, 58 county juvenile justice systems and the California Youth Authority.[88] There are wide differences between enrollment and ADA. For example, in all county community schools in 1988–89 there were approximately 21,695 pupils enrolled, but they generated only 8,167.19 units of ADA.[89] The usual stay in community schools is 3 to 6 months during which time students either complete the program or return to their regular school.

[85] Parole and prison populations are kept apart from less serious classes of delinquents.

[86] The Standards Handbook, Juvenile Court/Community Schools Administrators of California Standards Task Force, references *Education Code* Sections 44865–44867.

[87] *Ibid.*

[88] California Department of Education Report on Community Schools, February 1990, Educational Options Unit of Youth, Adult and Alternative Educational Services Division.

[89] *Ibid.*, Table F, page 17.

Unfortunately, detailed information on the age, gender, immigration, language status, and race/ethnicity of the community school population is not available.

❑ **Participant Characteristics.** Court and Community schools are alternative education programs serving young people who fall under the authority or protection of juvenile courts or local school districts. These programs are different from other alternative programs in that they are not freely chosen options.

The 1988–89 estimated enrollment was 21,695, about 1.6 percent of the total secondary school enrollment. A 1989 survey revealed that 56 percent had been enrolled in an alternative to comprehensive high school, 44 percent came from a comprehensive high school. Of those coming from alternative programs, 27 percent came from juvenile halls and ranches, 13 percent from continuation high schools, and 6 percent from opportunity classes. State level information on the age, gender, immigration, language status, and race/ethnicity of this population is not available at this time.

There are essentially five categories of community school student. These categories are: homeless, expelled from comprehensive school; referred by School Attendance Review Boards (**SARB**); referred by probation; or on parole. Eighty-nine percent of the community school population is referred by probation, and more than 51 percent of those are law violators. Less than one percent of the California Youth Authority's parolees are enrolled in community schools. Many teachers and administrators in alternative programs feel it necessary to practice educational triage. Bluntly, they seek to "separate the dead and dying" from those who can benefit from treatment.

Truancy and other status offenses get large numbers of youth into community schools. Some 9 percent are referred by SARB, and an additional 23 percent are referred by probation departments for being truant, or habitually insubordinate and disorderly. Approximately 5 percent of the community school population are there through no fault of their own. They are referred by the courts or Department of Social Services because they were runaways, homeless, neglected or abused.

Many of these students are committed for status offenses. Moreover, this classification of "deviants" is created as much by labeling as by behavior. The growth in this population reflects two things: the high cost of incarceration and the failure of social institutions, especially families and schools, to socialize youth.[90]

❑ **Impacts and Performance.** Data on the success of Community Schools is available in the School Accountability Report Card which can be attained through local County Office of Education. However, no statewide data were available for this report. There are no data to assess the success of community schools in terms of school retention or skill achievement. It is impossible to ascertain if community schools function primarily to warehouse a difficult population, or if they provide an alternative education experience tailored to a particularly high risk group. The cost per student was approximately $1,813. An indication of the cost-effectiveness of this program can be gathered by comparing the cost per student with the cost of incarceration at a residential facility, estimated at $28,000 per student per

[90] Research conducted in Hawaii has ramifications for the way educators view and treat youth-at-risk. The lives of almost 700 children born on Kauai in 1955 where followed for several years. Seventy-seven of the men and 26 of the women were teenage delinquents who had been arrested. Interestingly, most were never arrested again after age 18—at age 30, only one in four males and one in ten of the females had criminal record after age 18. There is no comparable study for California, but if the findings are generalizable, perhaps 75 percent of males and 90 percent of females in community school will never be arrested for an adult offense. The research was conducted by Emmy Warner at the University of California, Davis. *The Sacramento Bee*, April 18, 1990.

year.[91] While there is general agreement that Community Schools remove a volitile segment from high school campuses, there is little data concerning the impacts of these programs on participants.

Clearly, community schools have an important role to play for their students and society. More data are needed to plan and prioritize these programs.

Teenage Pregnancy and Parenting Programs

Specialized programs for pregnant and parenting teens are available within larger entities, including the traditional comprehensive high school, continuation education and community schools.

Pregnancy is the most often cited reason for women dropping out of school.[92] Yet, before 1958, there were no state-funded programs for pregnant and parenting teens. Today, the lack of a long range plan with a unified approach has limited the efficiency of programs for pregnant and parenting teens. Alternative and flexible educational options are necessary to retain the educational opportunities for these teenagers. Specialized programs for pregnant and parenting teens are available within larger entities, including the traditional comprehensive high school, continuation education and community schools. *Assembly Bill 3590* requires existing programs to submit a plan for the coordination of programs serving pregnant and parenting teens by June 1992.

Key characteristics of Teenage Pregnancy and Parenting Programs are as follows:

- **Organization.** Two state programs, Pregnant Minors Programs (**PM**) and School Age Parent and Infant Development Programs (**SAPID**), have been established that provide a comprehensive educational opportunity, and 14 programs have been developed to deliver specific instructional components or educational options. There are also three statewide resource centers that provide training and technical assistance (*e.g.* Comprehensive Health Education Resource Center, Employment Training Network, Sex Equity Resource Centers). Unlike the other educational options programs discussed, there is not one type of program to serve pregnant and parenting teens. Programs vary in quality, nature and duration of services contingent upon funding sources. Funding streams include ADA, categorical grants, federal and state money, and private foundation grants.

- **Educational Activities and Funding.** One of the stated goals is to further the development of comprehensive, coordinated and integrated programs to make more efficient use of existing funds and services. On a program level, *Assembly Bill 3590* is intended to mobilize existing services, prevent dropouts, encourage school re-entry, prevent second pregnancies, provide employment training, provide adequate child care, and develop parenting skills. As previously mentioned, a number of different and discrete programs offer direct services to pregnant and parenting teens. Below is a list of programs and their primary funding sources:

  - The Adolescent Family Life Program (**AFLP**), Department of Health Services (state funded)
  - Adult Education Parent Education, CDE (ADA funded)
  - Alternative Education Work Centers, CDE (state funded)

[91] California Department of Education Report on Community Schools, *op cit.*, pages 4 and 9.

[92] According to the Teenage Pregnancy and Parenting Programs Coordinator, in 1989, there were 64,935 live births to teen females in California.

- Continuation Education, CDE (ADA funded)
- Greater Avenues for Independence (**GAIN**), Department of Social Services (state funded)
- Independent Study, CDE (ADA funded)
- *Job Training Partnership Act*, U.S. Department of Labor (federally funded)
- Licensed Maternity Home Care Program, Department of Social Services (state funded)
- Pregnant and Lactating Students (**PALS**) (CDE, state categorical funding)
- Pregnant Minor Program (**PM**), CDE (ADA funded)
- Project Sex Equity in Education (**SEE**) California Department of Education (state funded)
- School Age Parent and Infant Development (**SAPID**) Program, CDE (categorical funded)
- Sex Equity Programs for Single Parents and Single Pregnant Women (federally funded)
- School-Based Pupil Motivation and Maintenance Programs (*SB 65/68 M&M*)
- Teen Pregnancy and Parenting Coordinator (state funded)

These multiple sources of funding and multiple regulations require special coordination efforts by state agencies and local school districts.

❑ **Participant Characteristics.** Data are not available to draw a demographic description of the population being served. Policy Analysis for California Education (**PACE**) found that of the Pregnant Minor and Teen Mother programs they studied, over two-thirds were between 15–17 years old. As pregnant and parenting students are served by both the traditional and educational option programs, the exact number of students served is unknown. However, in 1985–86 PM and SAPID programs enrolled only 25.8 percent of the estimated population of 71,700 in need of service and only 1,300 of these students used the SAPID childcare services.[93]

❑ **Performance and Implications.** Data are not now available to describe outcome measures and there are no evaluations of how effective these programs are in preventing dropouts or enhancing skills. Some programs such as the Adolescent Family Life Program (**ALFP**) and *SB 65/68* Programs have been evaluated, but data has not yet released.[94]

The lack of a unifying policy and coordinated, long-range planning for pregnant and parenting teenagers has resulted in state service delivery systems that are fragmented and duplicative.

---

[93] Helen Gagampang, William Gerritz, and Gerald Hayward, ***Pregnant and Parenting Minors and California Schools***, PACE, April 1987 (revised April 1989), page v; ***Teen Pregnancy: A Blueprint***, *op. cit.*, page 43.

[94] *Ibid.*

Foster Youth Services

Foster Youth Services (**FYS**) provide education for youths in foster homes and group homes. They are school-based programs that advocate educational success for foster youth. Key characteristics for Foster Youth Services are as follows:

Foster Youth Services provide education for youths in foster homes and groups homes.

- **Organization.** FYS serve two types of foster youth. One is "court dependant" youth, who have been removed from their homes due to abuse, neglect, or abandonment. The other are youth who are wards of the court, they have committed an offense and are placed in foster homes or group homes by juvenile courts. All wards are usually placed in Aid For Families with Dependent Children-Foster Care (**AFDC-FG**) group homes. As with other placement options, education is required for all wards 18 and under.[95] Considerable interagency cooperation facilitates Foster Youth Services. FYS provides services with the help and coordination of the educational, social service, juvenile justice, probation, and mental health systems.

- **Educational Activities and Funding.** There currently are four school-based Foster Youth Services programs in the state.[96] The common mission of all these programs is to enhance the school success of foster children which in turn helps to stabilize their foster home placement. The programs attempt to achieve this goal through a number of means including: educational assessment and placement, tutoring, counseling for students and foster parents, and student advocacy and liaison with foster parents.

- **Funding.** The Education Code specifies that the General Fund may be used for Foster Youth Services; however the four existing programs are funded through a special fund, the Foster Children and Parent Training Fund. Natural parents are billed for the cost of the foster home. Of the money collected, portions go to reimburse federal welfare costs, county operational costs, training for foster parents through community colleges, and $938,000 goes to CDE to fund the four FYS programs.[97]

- **Participant Characteristics.** It is estimated that there are over 80,000 school age foster children in California. Between 1984 and 1988, the AFDC-FG population increased by 38 percent. Of those in foster services, most were male.[98] According to a San Juan Unified School District Program Report, "Overview of the Needs of Foster Youth," the following academic problems have been reported for foster youth: 50 percent are retained at least one year, 75 percent are performing below grade level, 50 percent change schools every six months. Most do not have enough credits to graduate by age 18 when they are emancipated from foster care. Credits are usually lost as foster youth are transferred from school to school. Often foster youth are unable to enroll in school due to lack of immunization records. There is a particular concern with foster youth in California because although less than one percent of California children are in foster care, 36 percent of the total (1981 and 1982) admissions to the CYA were

[95] ***The 1989–1990 Budget: Perspectives and Issues***, page 322.

[96] These services do not take place in the foster or group home. They take place in the schools.

[97] Bradrick, Eloise, "Foster Youth Services: Questions and Answers," California Department of Education, (YAAES), June 1991.

[98] According to the Health and Welfare Agency's Out-of-Home Care Task Force, wards of the court have notable similarities. These include: substance abuse, emotional/psychological problems, learning disorders, average to low IQs, runaways, family problems, and lack of adequate care and adult control for the child.

former foster children. More effective FYS may decrease the percentage that move on to CYA facilities.

- **Impacts and Performance.** The effectiveness of these programs has been evaluated in a number of studies.[99] There is a consensus that the programs affect the attendance, behavior, and academic growth of foster youth students positively. For instance, based on 1989 program data, attendance rates for students in the program is 97 percent and there is an average gain of 2.5 months academic functioning for every month that a student receives tutoring.[100] Outside reviews confirm these successes. Major findings of Marjorie Seashore's study revealed that typical foster youth difficulties are addressed by Foster Youth Services. She found that 82–94 percent in each respondent group judged the program as "adequate" or better; 40–80 percent as "excellent" or "outstanding" in meeting the needs of students. Results indicated that foster youth attending schools at the four districts with special programs benefited from the services they receive. The primary deficiency of FYS seems not to be the program; instead, it is the limited number of students reached. The four foster youth service programs in the state only serve 2000 youth annually.[101] This is only a very small percentage of all foster youth in the state. As Rich Clarke points out, "The payoff in overcoming these barriers and unmet needs for this population are both short-term and long lasting, while being fiscally sound...In the long run, educationally successful emancipated youth serve as an early intervention to breaking the cycle of abuse, neglect and dependency."[102]

Alternative education programs may be models or experiments that can be used to guide needed changes in the "mainstream" high school.

The "alternative education" programs administered under the Educational Options Unit are not separate from the "mainstream" high school. Rather, they are additional options set within the context of other options. They are, however, distinct in that they place significant emphasis on student and parental choice, stress individual or customized study, place priority on more informal instruction, provide more flexibility in the scheduling of education, and strive to match the mode of instruction to the learning styles of groups and individuals. These traits suggest that these programs may be models or experiments that can be used to guide needed changes in the "mainstream" high school.

3.5 Key Findings

The comprehensive high school is perceived as the "mainstream" secondary education system. Indeed, most students begin their secondary education at a high school. However, many do not end their secondary education in a mainstream program. Alarmingly, roughly one third do not graduate at all. In spite of the perception that most teens are being served by a common high school program, in reality there are a number of options operating within the high school context that offer students flexibility and innovative instruction. Many of these options have grown substantially in the 1980's.

---

[99] See for example: Marjorie Seashore, "The Effectiveness of Foster Youth Services in Four California School Districts," Public Research Institute, School of Behavioral Sciences, San Francisco State University, Fall 1985; Timothy Fitzharris, "Evaluation of the Foster Youth Services Program: Report to the Stuart Foundations," Children's Services Foundation, Sacramento, February 1989; Rich Clarke, "Foster Children Services Provided by School Districts: Fiscal Year 1988–89: A Report to the Legislature as required by *Education Code* 42923(b)," Educational Options Unit, January 1990.

[100] "Foster Youth Services: Questions and Answers," California Department of Education.

[101] Rich Clarke, *op. cit.*, page 2.

[102] Rich Clarke, *op. cit.*, page 4.

Key findings about the educational options available to California youth are provided below:

- **Data and Analysis Are Inadequate.** Data on many educational options, and secondary schools in general, is frequently nonexistent, rarely collected or analyzed on a regular basis, and commonly noncomparable among programs and options. This makes evaluation and analysis of program impacts difficult, if not impossible. Until better data is collected and analyzed, it will be impossible to fine tune long-term educational planning.

- **High Schools Are Succeeding in Preparing Students for College.** College-bound students seem to be well served by the comprehensive high school. However, there are questions as to whether they might be better served by more educational options.

There are signs that the positive impacts of many educational options are diminished because students are given access to such programs too late in the school year.

- **High Schools Are Failing to Prepare Non-College Bound Students for Employment.** Research indicates that high schools are weak in preparing non-college bound youth for employment. Learning deficiencies (lack of basic education and the high dropout rate) indicate that high schools are not meeting basic goals. While these failures are clearly intensified by factors other than school (*e.g.* family and neighborhood conditions), high schools are failing to reach and motivate too many students. This suggests a need to assess new strategies for all educational programs serving non-college bound students.

- **High School Instruction Is Lecture-based and Classroom-Bound.** While there are notable exceptions, most educational activities within high schools take place through lectures in classrooms which require students to learn in a passive mode. For the most part, classes are compartmentalized into set periods of the day creating inflexibility. This raises the question of whether other modes of learning such as more personalized instruction, use of educational technology or individualized study plans might better engage students.

- **Many Educational Options Exist Outside the High School.** There are many educational resources outside the jurisdiction of school districts (*e.g.* job training, community based organizations, etc.). These options provide an opportunity to obtain a greater return on resources through public/private collaboration and cross-agency coordination.

- **Public School Systems Provide a Variety of Educational Options.** Today's secondary school system is not a monolithic program. Rather it is a combination of options concerning modes and areas of learning. However, these options are not clearly defined or integrated. This makes it difficult for students, parents and school staff to understand and move among available options.

- **Core Curriculum Is Applied Unevenly.** The "core curriculum" specified by *Senate Bill 813* is mandated for all educational options within public secondary schools. However, there are indications that student educational attainment required by this core curriculum is not being achieved through all educational options. New approaches may be needed to allow programs the flexibility for different approaches, while increasing accountability for meeting core educational goals.

- **Some Options Produce Positive Outcomes.** Available data indicate that the availability of options helps many students improve their educational achievement and motivates "at risk" students. However, many of these options do not have the resources for all those requiring services. There is a need for better orchestration of these options to serve the needs of today's student population.

- **Performance Measures are Inadequate.** There is no consistent and comparable performance measure used for all educational options. For several reasons, the California Assessment Program (CAP) test is not fully used within educational options. To complicate this shortcoming, the CAP may not be applicable to all options. Nor does it allow comparison of options within schools or the monitoring of individuals.

- **Participation in Options is Not Always Voluntary.** Participation in many educational options is not always freely chosen by students or parents. In some cases, such as correctional programs, students are assigned to educational options without choice. In other cases, there are signs that many students are moved into selected options with little opportunity for choice. These conditions must be reconciled with the philosophy of individual choice articulated by advocates of "alternative education."

Educational options are an increasing reality that reflect a growing diversity of students and social needs. The issue for the future is how we integrate and plan these options.

- **Options Can Stigmatize Participating Students.** Many educational options are viewed by students, parents, teachers and school administrators as "dumping ground" for students with discipline problems and low academic achievement. Even in cases where educational options provide superior instruction, the fact that they are "different" from "mainstream" programs makes them suspect to many students, parents, school staff and employers. This stigmatization undercuts the value of high school diplomas from many options, discourages many students from participating in options, and makes it difficult for students to move back to "mainstream" school programs once they have enrolled in options.

- **Options Are Often Used Too Late.** There are signs that the positive impacts of many educational options are diminished because students are given access to such programs too late in the school year. This suggests a need for more flexible and timely movement among all types of educational programs.

- **Intent of Programs Are Occasionally Abused.** There are limited signs that the intent of some educational options is being abused. Most notably, there appear to be some cases where ADA reimbursement for independent study has not been matched with appropriate commitment of resources from some school districts. This suggests a conceptual problem with using a "seat time" funding system for programs based on individualized learning.

- **Growth in the Need for Educational Options Does Not Match Population Needing Options.** Review of data concerning the growth of racial-ethnic diversity and "at-risk" youth populations indicates that the quantity and quality of available educational options does not match the size of the population in need of such programs. Additionally, the transformation of the United States from a manufacturing-based to information-based society, coupled with indications of alienation and disaffection from school among many youth indicate that tomorrow's school systems will require more options and new approaches to engage the youth of the future.

- **Shortcomings in the Performance of High Schools Reflect Broad-Based Social Problems Beyond the Control of Schools.** Many of the conditions undercutting the capacity of today's schools from evoking acceptable educational achievement from youth are beyond the direct control of schools. This means that meaningful programs to improve educational achievement must also address a broad range of social problems and changes. It also means that there must be broad-based community support and involvement with initiatives to improve educational performance.

Among the findings of this chapter, one stands out. The traditional notion that there is a common school program for all students is not a reality. Educational options exist today. But this move to options has not been deliberate nor systematic. Educational options are an increasing reality that reflect a growing diversity of students and social needs. The issue for the future is how we integrate and plan these options.

CHAPTER

4 Guidelines for the 21st Century

Review of trends and projections by representatives from education, business and the community resulted in these guidelines for long-term planning.

Advisory discussion, outreach and research have led to five general guidelines for planning educational options. These are accountability, availability of options, student choice, program and staff support, and coordination among programs:

(1) **Increase Accountability.** All educational programs and options need to be more accountable in terms of reliable measures of whether students actually master core skills and knowledge, *not* how long they sit in classrooms.

(2) **Develop a System of Quality Educational Options.** Schools must provide students with options that encompass the pace and mode of learning that best enables each individual to master core skills and knowledge.

(3) **Facilitate Student Choice and Achievement.** Students must have the information and freedom to move easily among all educational options according to their individual needs and achievements. All programs—and the students that attend them—should be positively regarded because they maintain the same core learning requirements.

(4) **Enhance Staff and Program Support.** Teachers, counselors and other educational staff must be given the resources and technical assistance to provide students with the educational experiences that enable each individual to value learning and master core skills.

(5) **Improve Planning, Coordination and Linkage.** The pressing need to enhance the skills of our population—and the scarcity of resources—requires more effective coordination within and beyond school districts to foster integration and mutual support among educational programs.

These five guidelines were derived from twenty specific themes identified by research and agreed upon the Advisory Committee on Educational Options (**Exhibit 4.1**).[1]

[1] "Summary of Survey on Research Findings," Advisory Committee on Educational Options, Pacific Management and Research Associates, Sacramento, September 16, 1990.

Exhibit 4.1
LONG-TERM PLANNING THEMES

Advisory discussion, outreach and research have led to twenty themes for planning educational options.

Increase Accountability:

- Apply "Core" Standards of Performance to All Educational Programs
- Establish and Reinforce Expectations for All Students
- Increase Responsibility for Students Over Time and Among Programs
- Improve Program Data and Measures of Performance
- Design Programs to Ensure that They Meet Stated Goals

Develop a System of Quality Educational Options:

- Recognize Existence of and Need for Educational Options
- Increase Pertinence to Racial and Ethnic Diversity
- Provide Options to Meet Needs of "High Risk" Youth
- Better Engage All Students
- Make Instruction More Appropriate to "Information Era"
- Explore and Expand Alternative Modes of Instruction

Facilitate Student Choice and Achievement:

- Increase Student Awareness of Educational Options
- Ease Flow Among Educational Options for Students
- Reduce Stigma Attached to Some Educational Options

Enhance Staff and Program Support:

- Enlist the Skills and Knowledge of All Educational Staff
- Provide Resources for Staff and Program Development
- Ensure Adequate Funding

Improve Planning, Coordination and Linkage:

- Develop Consistent, Reliable and Comparable Data for All Educational Options
- Collaborate With Educational and Social Programs Outside of School Districts
- Enhance Community, Business and Parental Involvement

These themes provide direction for planning a system of educational options that builds upon existing successes and uses emerging technology to meet the needs of tomorrow. Each of these twenty themes is elaborated in this chapter.

4.1 Increase Accountability

Accountability is a key concern of our times. Increasing demands placed upon limited resources require that education, as well as all public and private endeavors, provide real outcomes for funds expended. This means that programs should explicitly define what they intend to accomplish and document achievements with reliable, comparable and objective information. Five themes specify the need for accountability:

❑ **Apply "Core" Standards of Performance to All Educational Programs.** The "core curriculum" specified by *Senate Bill 813* is mandated for all educational options within public secondary schools. However, there are indications that student educational attainment required by this core curriculum is not being achieved through all educational options. New approaches may be needed to allow programs the flexibility for different

approaches, while increasing accountability to core educational goals. California's "core curriculum" must also be enhanced to incorporate the group process skills, team work, problem solving abilities and basic technological literacy needed in today's world.

- **Establish and Reinforce Expectations for All Students.** Expectations for educational attainment must be explicitly stated and reinforced to meet the needs of the future. The skill requirements for life and work are both changing and increasing. These trends indicate that there will be an increasing gap between the skills required for life and employment and the skills achieved by tomorrow's adult population. College-bound students are presented with clear entrance requirements and counseled regularly concerning their progress toward meeting these requirements. However, non-college bound students are rarely presented with the requirements for work and life, and little is done to counsel them concerning their progress toward meeting these basic requirements. Learning expectations must be established and reinforced for *all* students.

Programs should explicitly define what they intend to accomplish and document achievements with reliable, comparable and objective information.

- **Increase Responsibility for Students Over Time and Among Programs.** New ways must be found to ensure that students are not lost as they move among programs, schools and community institutions. The availability of educational options and varied community programs provides many needed services. However, they also increase the chance that no person or institution assumes the responsibility for guiding and coordinating student progress. Ways must be found to guarantee that all programs share and coordinate responsibility for individual students.

- **Improve Program Data and Measures of Performance.** Education is a process not a goal. The goal is learning. Educational programs should be held accountable primarily for how much students learn, not what programs students take or how long they study. Accountability should demonstrate the value of programs to students—most notably in terms of educational achievement. Unfortunately, there is no consistent and comparable performance measure used for all educational options. The California Assessment Program (CAP) test is not consistently used within educational options. The CAP may not be applicable to many options and does not allow comparison of options within schools. Standardized measurements should be developed to document accountability to individual students and society. Measures should also show the quality of inputs to educational programs and the results of programs.

- **Design Programs to Ensure that They Meet Stated Goals.** There are signs that the intent of some educational options is being abused. Most notably, there appear to be some cases where ADA reimbursement for independent study has not been matched with appropriate commitment of resources from some school districts. This suggests a conceptual problem with using a "seat time" funding system for programs based on individualized learning. It is not enough to set goals for programs and provide funding. Programs must be designed so that they meet intended goals and funding must provide an incentive for meeting those goals.

These themes do not suggest that providers should not develop their own standards for excellence and accountability. However, they do underscore the need for documenting delivery of baseline results and achievement of excellence as a condition of support from the California public and participating students.

4.2 Develop a System of Educational Options

Educational options are a reality—both within the "mainstream" high school and as an alternative to the "mainstream" high school. These options provide viable and meaningful roads to learning for California's increasingly diverse student population. The nature of, and need for, these options must be recognized, and educational planning must focus on the task of better coordinating these options to meet the needs of students. Six themes have been distilled concerning the development of educational options:

The nature of and need for options must be recognized, and educational planning must focus on the task of better coordinating these options to meet the needs of students.

- **Recognize Existence of and Need for Educational Options.** Today's secondary school system is not a monolithic program. Rather, it is a combination of options for different modes and areas of learning. However, these options are not clearly defined or integrated. This makes it difficult for students, parents and school staff to understand and move among available options. This requires that we recognize the roles and importance of options—and find ways to better plan and integrate them—so that they meet the "core" educational objectives of California's educational system.

- **Increase Pertinence to Racial and Ethnic Diversity.** California is well on its way to ethnic-racial pluralism in which no group has "majority" status. This racial-ethnic diversity creates a myriad of personal values, cultures, and world views of how society works. Schools must find ways to assimilate and integrate a growing multitude of cultural combinations—and build a common ground of skills and understanding—while also making both the content and process of education relevant.

- **Provide Options to Meet Needs of "High Risk" Youth.** One of the most striking trends of our times is the growing number of students who fall short of minimal educational achievement. An increasing number leave school before receiving a diploma or the equivalent. Many others who remain in school do not attain the knowledge and skills necessary to lead satisfying and productive lives. A major cause of this crisis in educational attainment is that large portions of our youth confront major personal and social problems. Some of these include poor family environments, poverty, criminal activity and records, substance abuse, teenage parenthood, lack of citizenship status, excessive geographic mobility, and disabilities or handicaps. These "at-risk" youth need educational options that provide support to overcome specific problems, opportunities for remedial learning if needed, and a fluid linkage to the "mainstream" population.

- **Better Engage All Students.** Better ways are needed to assist every individual find the abilities and interests that allow him or her to make the most of themselves and contribute their best to others. Every youth has special interests and abilities that represents not only their personal strengths, but links of relevance that makes other educational activities worthwhile. Some students learn intellectually and logically, and others more holistically and affectively. Educational options are necessary to provide individuals with a range of approaches for better matching the instructional process to individual modes of learning.

- **Make Instruction More Appropriate To "Information Era."** California is in the middle of a transformation from an industrial society typified by manufacturing and mass standardization to an "information society" typified by services, computers, electronic communications, and increasing diversity. The tools and processes we are using and will use in daily life are

not be the same as those used in today's schools. For example, classroom lectures may seem slow and boring to students who gain rapid access to information and resources in other areas of their lives. This is causing an incongruity between the world youths live in and the schools they attend. Technologies used on the job, and in daily life, should be assimilated into our schools.

Schools must ensure that choices represent opportunities for growth and renewal rather than irreversible decisions.

- **Explore and Expand Alternative Modes Of Instruction.** The most common educational activity in high schools is the classroom lecture. This requires students to learn in a passive—not interactive—mode. Further, classes are usually compartmentalized into set, inflexible periods of the day. Other modes of learning, such as personalized instruction, use of educational technology or individualized study plans might better engage students.

The growth and apparent need for educational options indicate a movement toward "individualizing"—focus on individual processes of learning. This does *not* mean that "core" learning objectives have changed. Rather, it means that groups and individuals learn best when they are given a choice concerning the processes of learning and their goals for learning beyond "core" requirements.

4.3 Facilitate Student Choice and Achievement

Schools, like the society that surrounds them, are a marketplace of competing choices. Some choices require greater and longer efforts, others represent different directions, and still others entail decision about the approach to reaching a common goal. Schools must be restructured to ensure that students understand the options available to them and the actions and achievements needed to pursue these options. Most of all, schools must ensure that choices represent opportunities for growth and renewal rather than irreversible decisions. There are three key themes dealing with student choice:

- **Increase Student and Parent Awareness of Educational Options.** There are signs that the positive impacts of many educational options are diminished because students are not given access to such programs early enough. This suggests a need for more flexible and timely movement among all types of educational programs. The first step is to make students and parents more aware of the educational options available to them and improve the quality of information about available options.

- **Ease Flow Among Educational Options for Students.** Participation in many educational options is not always freely chosen by students or parents. In some cases, such as correctional programs, students are assigned to educational options without choice. In other cases, students are moved into selected options with little opportunity for choice. Further, there is evidence that students are not aware of options available to them. These conditions indicate a need to facilitate choice and movement among options. Educational options must be designed as opportunities, not restrictions. Ways must be found to facilitate participation and transfer among options in accord with the documented achievements and need of individual students.

- **Reduce Negative Stigma Attached to Educational Options Outside the "Mainstream."** Many educational options are viewed by students, parents, teachers and school administrators as "dumping ground" for students with discipline problems and low academic achievement. Even in cases where educational options provide superior instruction, the fact that they are "different" from "mainstream" programs makes them suspect to many students, parents, school staff and employers. This stigmatization undercuts the value of high school diplomas from many options, discourages many students from participating in options, and makes it difficult for students to move back to "mainstream" school programs once they have enrolled in options. Ways must be found to increase general acceptance for educational options. One of the most important steps in this direction is to ensure that all educational options support "core" educational goals.

A focal goal for the future is to provide educational options and facilitate student choice among these options. A principle purpose of this goal is to ensure that students find the programs and modes of instruction that foster their best educational progress. Another purpose is to use choice as a planning mechanism. By providing a "marketplace" of educational options within school districts, student choice—coupled with accountability measures of skill achievement—should create long-term forces to determine the growth and evolution of all educational options.

4.4 Enhance Staff and Program Support

Administrators, teachers and other staff must have the tools, resources and opportunities to create and maintain a vibrant system of educational options. As we move into the 21st Century, special efforts must be made to facilitate the assimilation of new technologies and methods. Three themes are apparent:

- **Enlist The Skills And Knowledge Of All Educational Staff.** We must better use our existing human resources. Schools must find ways to better involve and use the skills and knowledge in the planning and administration of our educational system.

- **Provide Resources For Staff And Program Development.** Orchestrated and state-of-the-art resources must be provided to assist local providers isolate and deliver the most appropriate instructional approaches. Resources must also be effectively marshalled to provide pre-service and in-service staff training and professional development assistance to teachers, counselors, administrators and school board members to meet constantly changing learning needs.

- **Ensure Adequate Funding.** Funding and facilities must be equitably available across the state and adequate to provide quality programs to students.

New and alternative approaches can not be tested and approved without a spirit of innovation and an environment that encourages the sharing of new tools and techniques. Resources must be committed to create such a spirit and the climate that sustains it.

4.5 Improve Planning, Coordination and Linkage

The diversity of student needs, complexity of educational options, rapidity of social change, and scarcity of resources intensify the need for effective planning and coordination. Four themes should guide the planning of educational options:

- **Develop Consistent, Reliable And Comparable Data For All Educational Options Within And Beyond School Districts.** Data on many educational options—and secondary schools in general—are frequently non-existent, rarely collected or analyzed, and commonly non-comparable among programs and options. This makes evaluation and analysis of program impacts difficult, if not impossible. The collection and analysis of better data is a critical prerequisite to effective planning and coordination.

If we are to ensure the level of learning that the future will require from tomorrow's adults, we must find bold and effective ways of achieving these goals for today's youth.

- **Collaborate With Educational And Social Programs Outside Of School Districts.** There are many educational resources outside the jurisdiction of school districts (*e.g.* job training, community based organizations). These options provide an opportunity to obtain a greater return on resources through public/private collaboration and cross-agency coordination.

- **Enhance Community, Business And Parental Involvement.** Many of the conditions undercutting the capacity of today's schools from evoking acceptable educational achievement from youth are beyond the direct control of schools. This means that meaningful programs to improve educational achievement must also address a broad range of social problems and changes. It also underscores the necessity of increasing the involvement and support of parents, business and the community at large.

- **Institutionalize Long-term Planning And Advisory Processes For High School Education.** Planning and coordination do not occur in a vacuum. They require a forum to focus debate and decision making, and technical support to implement policy decisions. These processes and resources must be institutionalized on a long-term basis.

These four themes propose development of a more systematic and cohesive way of planning and delivering educational options.

All twenty themes represent ambitious, but essential, goals. If we are to ensure the level of learning required from tomorrow's adults, we must find bold and effective ways of achieving these goals for today's youth.

CHAPTER

5 A Plan for Educational Options

This plan proposes that long-term steps be taken to create a system of educational options that is accountable for core standards of student achievement, empowers students to choose options that best meet their personal learning styles, and frees schools to develop innovative programs for providing education through varied approaches.

This plan outlines fundamental changes in today's schools. It proposes that school districts work cooperatively with business, parents, and other stakeholders to improve the long-term effectiveness of high school education. It puts forth a series of integrated recommendations that will enable schools to improve student achievement by building upon the unique strengths and aspirations of each individual. Most important, it proposes that common learning goals can best be achieved by allowing students and parents choice concerning instructional methods and environments.

The plan envisions the creation of a system of educational options linked by common standards for student achievement. These options would be designed to allow individuals to find the mode of learning that enables them to achieve to their fullest potential. A key component of this plan is "common standards." Educational options provide students with alternative modes and contexts for learning, which can improve and sustain educational achievement. However, all options must all be judged in terms of a common standard of what students are expected to learn. Schools must be given much greater freedom to determine the methods, timing and environment for learning, but this increased flexibility must not compromise core learning objectives.

This chapter will outline an image of how educational options can work within tomorrow's highs schools. It will have the following four sections:

(1) The Initiatives We Propose

(2) Recommendations for Tomorrow

(3) How Options can Meet Common Goals

(4) Is It Possible?

This chapter focuses on the role educational options should play within secondary schools by the 21st century. It presents the components of a future system of educational options and explains the rationale for each component. A strategy for implementing this system over the coming years will be presented in the next chapter.

5.1 The Initiatives We Propose

Twenty-one recommendations are presented that together provide an interlinked system for the delivery of education to California's youth (**Exhibit 5.1**).

These recommendations have been developed with the intent of achieving multiple payoffs concerning the five goals of (1) increasing accountability, (2) developing a system of educational options, (3) facilitating student choice, (4) enhancing staff and program support, and (5) improving planning and coordination (**Exhibit 5.2**).

Exhibit 5.1
STRATEGIC RECOMMENDATIONS

Twenty-one strategic recommendations are proposed.

Increase Accountability:

(1) Support and Enhance the "Core Curriculum" for All Educational Options
(2) Set Standards and Expectations for "All" Students
(3) Measure Program Performance by What Students Learn
(4) Funding Incentives for Program Performance

Develop a System of Quality Educational Options:

(5) Policies that Support Educational Options to Enhance Student Achievement
(6) Modes of Instruction to Match the "Information Era"
(7) Make Secondary Education a Stage of "Lifelong Learning"
(8) Support the Evolution of Classrooms into Technology-supported Learning Centers
(9) Test Linkage of Funding to Individual Students in Accord with Needs

Facilitate Student Choice and Achievement:

(10) Personal Education Plans **(PEPs)**
(11) Comprehensive Counseling, Guidance, Placement and Certification Services
(12) Student Access Card

Enhance Staff and Program Support:

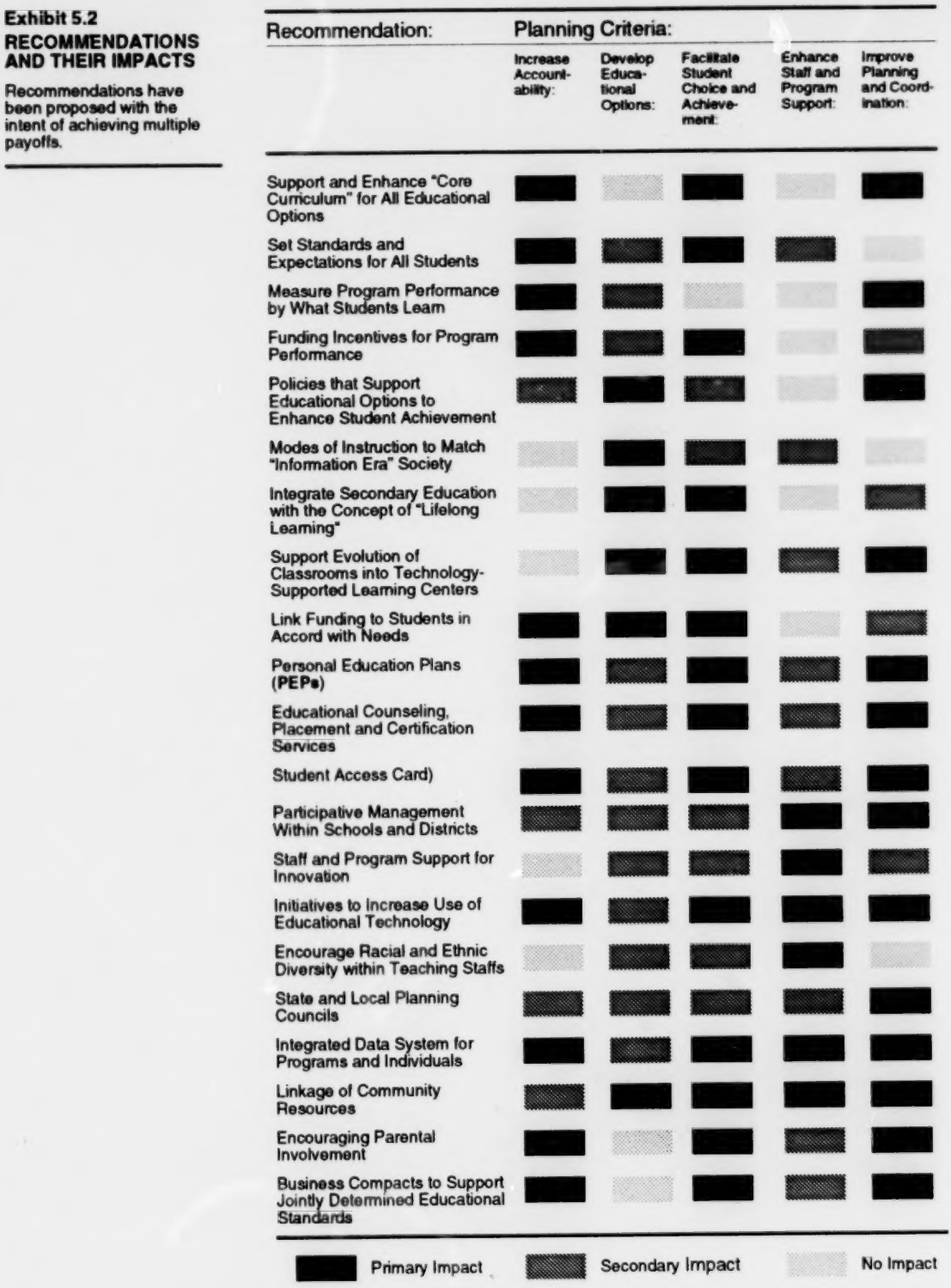
(13) Participative Management Within Schools and Districts
(14) Staff and Program Support for Innovation
(15) Initiatives to Increase Use of Educational Technology
(16) Encourage Racial and Ethnic Diversity Within Teaching Staffs

Improve Planning, Coordination and Linkage:

(17) State and Local Planning Councils
(18) Integrated Data System for Programs and Individuals
(19) Linkage of Support Resources
(20) Encouraging Parental Involvement
(21) Business Compacts to Support Jointly Determined Educational Standards

Exhibit 5.2
RECOMMENDATIONS AND THEIR IMPACTS

Recommendations have been proposed with the intent of achieving multiple payoffs.


Recommendation:
Planning Criteria:
Increase Account-ability:
Develop Educa-tional Options:
Facilitate Student Choice and Achieve-ment:
Enhance Staff and Program Support:
Improve Planning and Coord-ination:
Support and Enhance "Core Curriculum" for All Educational Options
Set Standards and Expectations for All Students
Measure Program Performance by What Students Learn
Funding Incentives for Program Performance
Policies that Support Educational Options to Enhance Student Achievement
Modes of Instruction to Match "Information Era" Society
Integrate Secondary Education with the Concept of "Lifelong Learning"
Support Evolution of Classrooms into Technology-Supported Learning Centers
Link Funding to Students in Accord with Needs
Personal Education Plans (PEPs)
Educational Counseling, Placement and Certification Services
Student Access Card)
Participative Management Within Schools and Districts
Staff and Program Support for Innovation
Initiatives to Increase Use of Educational Technology
Encourage Racial and Ethnic Diversity within Teaching Staffs
State and Local Planning Councils
Integrated Data System for Programs and Individuals
Linkage of Community Resources
Encouraging Parental Involvement
Business Compacts to Support Jointly Determined Educational Standards
Primary Impact
Secondary Impact
No Impact

5.2 Recommendations for Tomorrow

This section elaborates each of the twenty-one recommendations put forth by this plan. These recommendations are presented within the context of the general planning goal to which they make the greatest contribution. However, it is emphasized that most proposals have been developed to provide multiple benefits and support many planning goals (**Exhibit 5.2**). As mentioned previously, these general goals are:

- Increase Accountability
- Develop a System of Quality Educational Options
- Facilitate Student Choice
- Enhance Staff and Program Support
- Improve Planning, Coordination and Linkage

Accountability is understanding what we really wish to accomplish and how well our actions bring us closer to our goals.

It is important to note that these recommendations are policy proposals, not goals. Put differently, these recommendations are pragmatic institutional arrangements that enable individuals and organizations to achieve desired goals (*e.g.* flexible funding arrangements would free educational providers to schedule instruction in a variety of ways and fund non-traditional delivery methods such as television courses).

Increase Accountability

Accountability is more than a process that ensures that we produce what we promise. It is also the basis of understanding what we really wish to accomplish and how well our actions bring us closer to our goals. Four recommendations are proposed to increase accountability:

- Support and Enhance the "Core Curriculum" for All Educational Options
- Set Standards and Expectations for "All" Students
- Measure Program Performance by What Students Learn
- Funding Incentives for Program Performance

These recommendations are intended not only to ensure that schools accomplish essential goals. They are also intended to ensure that essential goals are commonly understood, that the success or failure of different approaches to achieving these goals are understood, and that incentives given to individuals and organizations truly support these goals.

Support and Enhance the "Core Curriculum" for All Educational Options

It is unlikely that goals will be reached if they are not clearly defined and commonly understood. A common standard of learning goals must be recognized and enhanced to meet the changing requirements of our times. The goals of California's "core curriculum" must be supported and applied consistently by all educational options. This "core curriculum" must also be enhanced to incorporate group processes, team work, problem solving, critical thinking, and basic technological literacy needed in today's world.

Our society and economy will require higher levels of skills and knowledge. Education that does not provide the basic skills and knowledge necessary for day-to-day life, work, citizenship and ongoing learning meets neither the needs of students nor society. The skills and knowledge specified in 1983 by California *Senate Bill 813* provide the basic standards for a high school education that is appropriate to our times.[1] Although *SB 813* may need augmentation, the learning goals specified should be rigorously supported by *all* educational options as basic requirements for a high school diploma.

The goals of California's "core curriculum" must be supported and applied consistently by all educational options.

Changing demographics and economic conditions indicate that today's "core curriculum" should be augmented. The tools that we use in life and work are changing. Basic technological literacy in areas such as computer operations, data bases and electronic communications are likely to become basic skill requirements of the near future. The increasing need to deal with human diversity and to integrate information and services has moved us all beyond a point where we can work in isolation as specialists. Our school curricula must place greater emphasis on group processes, team work, interpersonal communication and problem solving. As we move progressively toward a multi-cultural and multi-lingual society positioned at the gateway to Asia and South America, multiple language skills are likely to grow in importance. In many cases, schools are likely to have more success teaching these skills by changing the process of learning rather than the content of education.[2]

Recommendation 1

SUPPORT AND ENHANCE THE "CORE CURRICULUM" FOR ALL EDUCATIONAL OPTIONS

Rigorously support and require the application of common learning goals for all educational options:

- All educational options providing a high school diploma must require students to achieve demonstrated mastery of the "core curriculum," as specified in California *Senate Bill 813* and the federal *America 2000* education reform initiative.
- The "core curriculum" specified in California *Senate Bill 813* must be augmented to place greater emphasis on skills dealing with group processes, interpersonal communication, team work, multiple languages, problem solving, critical thinking and basic competence with key technologies. The "core curriculum" should also support development of self-esteem and positive attitudes toward learning.

Attention should be placed on defining the learning goals of "core curriculum" in measurable terms so that instructional programs across the state and educational options using a variety of learning contexts and methods can be evaluated comparatively in terms of the skills and knowledge achieved by participating students.

---

1 *Senate Bill 813*, Chapter 498, California State Senate, Sacramento, filed July 28, 1983.

2 Anthony Carnevale, *et al.*, ***Training Partnerships: Linking Employers and Providers***, American Society for Training and Development, Washington D.C., 1989; Anthony Carnevale, Leila Gainer and Ann Meltzer, ***Workplace Basics Training Manual***, American Society for Training and Development, Jossey-Bass Publishers, San Francisco, 1990; and Fred Best, "Approaches for Determining the Skill Requirements of Occupations," ***Annual Competency-Based Education Conference***, Sacramento, February 26, 1989.

BEST COPY AVAILABLE

Ultimately, learning goals, not prescribed processes, should drive "all" educational options in the schools of the future. Programs and students alike should be expected to meet these standards.

Set Standards and Expectations for "All" Students

Expectations for educational achievement are not likely to be attained if they are not explicitly stated and reinforced. Learning expectations must be established and reinforced for *all* students if we are to expect *all* to achieve the skills and knowledge they will need.

Learning expectations must be established and reinforced for all students if we are to expect all to attain the skills and knowledge they will need.

There is evidence that we do not have clear and challenging expectations for *"all"* our students. College-bound students are presented with clear entrance requirements and counselled regularly concerning their progress toward meeting these requirements. Non-college bound students are rarely presented with the requirements for work and life, and little is done to counsel them concerning their progress toward meeting these basic requirements.

Recommendation 2

SET STANDARDS AND EXPECTATIONS FOR "ALL" STUDENTS

Educational standards and expectations must be specified and reinforced for all students through the following methods:

- Employers and educators must work at the state and local levels to define essential skills, knowledge and behavior necessary for successful entry into the workforce.
- Educators must work at the state and local level to articulate the secondary educational achievements required for success in postsecondary educational programs.
- Parents and educators must work at the state and local levels to define essential skills and knowledge for everyday life.

The skill and knowledge requirements identified should be clearly conveyed to students in terms of the courses and educational options they should pursue in order to reach their personal goals. These learning objectives must be constantly reinforced by schools, parents, businesses and community organizations.

Countless reports from the business community document high levels of basic skill deficiencies among recent high school graduates. Too many entry-level job seekers do not possess the basic skills to learn the job-specific tasks employers require.[3] Students must be made acutely aware of the skills they must have to gain and keep jobs.

Even for the university and community college-bound, there are gaps between student expectations and actual requirements. The existence of remedial courses and programs within four-year colleges and universities indicates that many students move from high school to postsecondary education without adequate preparation. More important, community colleges, which represent an "open door" of ongoing educational opportunity, provide extensive

[3] ***America's Choice: High Skills or Low Wages***, National Center on Education and the Economy, New York, June 1990, pages 23–31; and James Markey, "The Labor Market Problems of Today's High School Dropouts," ***Monthly Labor Review***, June 1988, pages 36–43.

remedial services to bring individuals to basic high school graduation standards. Educational requirements should be articulated more clearly and enforced more rigorously to reduce the waste of time and resources resulting from the need for remedial studies after high school.

Learning expectations must be established and continually reinforced for all students. Whether students pursue a four-year college education, training at a community college, or employment, employers and schools must clearly state that skills not learned today must be learned tomorrow.

Measure Program Performance by What Students Learn

Educational programs should primarily be held accountable in terms of how much students learn, not what programs students take or how long they study.

Education is a process not a goal. The goal is learning. Educational programs should primarily be held accountable in terms of how much students learn, not what programs students take or how long they study. Consistent assessment procedures must be developed to document accountability to students and society. These measures should focus primarily on the value of programs to students—most notably skill and knowledge achievement.

Recommendation 3

MEASURE PROGRAM PERFORMANCE BY WHAT STUDENTS LEARN

The California Department of Education should work with local educators, business and other stakeholders to develop program performance measures based on the learning achievements of individual students. These measures should include:

- Standardized skill and knowledge assessment processes should measure student achievement in all areas of the "core curriculum" and selected electives in ways that allow comparison among varied educational options.
- Every student should have the right to alternative assessment procedures that produce comparable data on skill achievement (*e.g.* authentic or applied performance tests, verbal tests, paper and pencil tests, or portfolios evaluated by a common standard).
- Assessment processes should measure students' ability to transfer skills and knowledge to a variety of functional contexts.
- Testing systems should be used to provide feedback to individual students and to certify individual achievement.
- Assessment procedures should produce data that is representative of all participants of educational programs.
- Scoring and data processing procedures should allow scores to be disaggregated to show skill achievement by student characteristics, programs and geographical areas.

Assessment procedures must produce comparable data on skill and knowledge gains for individual students, programs, and the state. These measures of progress should recognize and adjust for the fact that schools deal with a wide range of student populations that start learning at different levels, and learn at different speeds.

It is critical that skill assessment procedures be standardized. The results of varied educational options must be measured by a common yardstick in order to compare and improve program performance. More importantly, individual students must know whether their learning achievement meets common standards that are transferable to other educational programs and the demands of society.

Skill assessment procedures need not be restricted to "paper and pencil tests," nor is it essential that the skill achievement of different students be measured by the same assessment process. However, it is critical that assessment systems be applied consistently. It is also essential that results of assessment for individuals and programs be cross-referenced to a common scale of skill achievement to be used among educational options, between school districts and across the state. Finally it is necessary that skill assessment data be collected so that they provide a picture of how well students are progressing within different educational options.

It is critical that assessment systems be applied consistently. It is also essential that results of assessment be cross-referenced to a common scale of skill achievement to be used among educational options, between school districts and across the state.

Additional performance measures should be used beyond the above noted assessment system. However, standardized assessments of what students actually learn should be the primary measures of program performance and student achievement.

Funding Incentives for Program Performance

Funding is a powerful incentive. It should be linked to the learning achievements of students. This does not mean that funding should be determined solely by how much students learn. Rather, some portion of funding should be linked to the measured educational *gains* of students.

Recommendation 4

FUNDING INCENTIVES FOR PROGRAM PERFORMANCE

Explore ways to link the funding of public school programs to student achievement:

- Develop and test modes to provide incentives for superior performance through revenue bonuses beyond base funding to programs with high student skill "improvement" levels documented by standardized assessment procedures (**see Recommendation 3**).
- Develop and test program options to be funded in accord with the documented skill and knowledge "improvement" of students rather than "seat time."

Funding incentives should not be implemented in ways that handicap schools confronting high student turnover and other learning barriers. These initiatives also should not penalize schools with existing records of high student achievement, or create permanent funding inequities among schools.

Today's public education system is rewarded for a *process* rather than an *outcome*. Schools are paid for the time students spend in classrooms, not how much they learn. Further, payment for the time students spend in the educational process tends to encourage classroom instruction, as opposed to other modes of instruction.

Ways must be found to use funding as an incentive for improving student achievement and developing more options concerning modes of learning.

Numerous models exist for linking funding to program performance. Many job training programs use job placement or matriculation to more advanced studies as a pre-condition for full payment. Some adult education programs are experimenting with "value added" or "cost reimbursement" models that stress efficiency. A variety of strategies have been designed to provide "funding bonuses" to schools with superior student achievement. Finally, several models are under development that would link portions of funding for public education to the "improvement" of student scores on standardized skill assessment tests.[4] Unfortunately, none of these models are without tradeoffs or shortcomings.[5] While they present many promising possibilities, action in this area should be well-thought-out and carried out under the guidance of those who have a stake in the future of education.

The development of options that allow schools the choice of linking funding to student achievement would allow more flexibility for providing a variety of learning modes that can better meet the needs and abilities of our increasingly diverse student population.

Funding systems can be more than incentives for performance. They can also encourage or discourage different modes of learning. Current funding by Average Daily Attendance (**ADA**) or "seat time" discourages modes of instruction that might enable students to learn skills in shorter periods of time (*e.g.* under ADA, instruction that takes less time would entitle school to less funding). Reimbursement for "seat time" also discourages approaches to learning that are difficult to monitor (*e.g.* individual or self-paced learning, on-the-job training, television courses). The development of options that allow schools the choice of linking funding to student achievement would allow more flexibility for providing a variety of learning modes that can better meet the needs and abilities of our increasingly diverse student population.

Individuals and institutions respond to incentives. Funding can be an important incentive. Fair and effective options must be developed for making funding an incentive for performance and innovation.

Develop a System of Quality Educational Options

One of the greatest challenges of modern society in the late 20th Century is the management of diversity and individualization. Movement from agrarian to industrial society added new occupations and life styles, massively expanded our cities and the density of our population, and created a new way of life called suburbia. People, objects and information are being transported at ever faster speeds and combined into increasingly complex patterns. Industrial society has moved from "mass products" to "product lines." Now the advent of Computer Assisted Design and Computer Assisted Manufacturing (**CAD/CAM**) places us at the threshold of using factory technology to make individualized products on a mass scale.[6] Technology, the flow of information, and population density are moving us into an increasingly complex and interdependent fabric of human and institutional diversity.

[4] Edward Kissam and Dennis Porter, ***Funding for Innovation and Performance***, Adult Education Institute for Research and Planning, Sacramento, January 1991.

[5] Among the barriers to be overcome before funding can be effectively linked to performance, the following are most commonly mentioned: (1) Many schools draw students from populations confronting major social problems which can put them at a disadvantage in terms of learning achievement-oriented performance measures. (2) Funding incentives given for high student achievement could create a "caste system" among schools, in which those receiving additional funds have the resources to maintain superior performance, while low performance schools never gain the resources needed to support higher student achievement. (3) Incentives for "improvement" of skills rather than pre-defined levels of performance could cause schools to "peak-out," and thereby neutralize the impact of incentives.

[6] Eli Ginzberg, "The Mechanization of Work," ***Scientific American***, September 1982; and Richard Dorf, ***Robotics and Computer-Aided Manufacturing/Design***, California Commission for Industrial Innovation, Governor's Office, Sacramento, August 1982.

Schools, like the society they serve, are also moving toward more diversity and individualization. As society has moved from the farm to the city and suburbs, secondary education has progressed from the one-room school house to the comprehensive high school and now to countless categorical programs and increasing individualized study. Geographically and programmatically, "urban sprawl" has been matched by "educational sprawl." Racial and ethnic diversity, social problems putting many youth "at-risk," and different reactions to the "information era" demand more than "mass education" from our schools. Educators and schools have responded to this demand with countless educational options. We cannot reverse this trend toward individualization and educational options. However, we can work to better plan and coordinate these options.[7]

Schools, like the society they serve, are moving toward more diversity and individualization. We cannot reverse this trend toward individualization and educational options. However, we can move positively to better plan and coordinate these options.

This section proposes five long-term recommendations to develop a system of quality educational options:

- Policies that Support Educational Options to Enhance Student Achievement
- Modes of Instruction to Match the "Information Era"
- Make Secondary Education a Stage of "Lifelong Learning"
- Support the Evolution of Classrooms into Technology-Supported Learning Centers
- Test Linkage of Funding to Individual Students in Accord with Needs

These five recommendations are discussed and specified in the following pages.

Policies that Support Educational Options to Enhance Student Achievement

Educational options have grown out of two major trends. First, they have been necessary to better serve the educational needs of our increasingly diverse student population. Second, our knowledge and capacity to customize education for groups and individuals has increased.

Educational options are a permanent reality within today's high schools. These options include college preparation, GATE programs, vocational education, continuation schools, independent study, work-study arrangements, special education, advanced college placement, and many other alternatives. Some have special locations set apart from the conventional high school. Some distinctly different educational modes are located with little fanfare down the hall from more conventional programs. Some are remedial, some are advanced, and most represent a different way to achieve a common goal.

The "bottom line" is that today's high school *is* educational options. There may be "core" educational goals. However, there is no standard mode of instruction or path of study to these goals. We cannot return to an era where all students study the same thing the same way at the same pace.

We must recognize the permanence and necessity of educational options and develop policies and approaches that ensure that these options meet "core" goals in ways that create rather than inhibit opportunity for students.

[7] *Review of Educational Options for California's Youth*, Pacific Management and Research Associations, Sacramento, December 1990.

State and local educational agencies must develop policies that explicitly recognize the existence and value of educational options. These policies should acknowledge individual differences among students, and acknowledge that educational options can serve the needs of all students. However, *all* educational options must require that participating students attain skills specified in California's "core curriculum." They should also make a commitment to fully inform students and parents about available options and encourage students' movement among options in accord with their individual needs and demonstrated abilities.

State and local educational agencies must develop policies that explicitly recognize the existence and value of educational options. These policies should acknowledge individual differences among students and acknowledge that educational options can serve the needs of all students.

Recommendation 5

POLICIES THAT SUPPORT EDUCATIONAL OPTIONS TO ENHANCE STUDENT ACHIEVEMENT

State and local educational agencies must articulate official policies supporting the existence and integration of educational options. These policies should incorporate the following principles:

- Educational options allow students with different needs, goals and learning styles to achieve more than would be the case with no options.
- Options are a reality within today's school systems that must be supported and coordinated.
- All educational options must support and require learning achievement as specified by California's "core curriculum" (**see Recommendation 1**).
- Priority must be given to finding ways to inform students and parents of existing educational options, remove barriers that prevent the flow of students among options according to individual needs and achievements, and prevent involuntary placement of students into inappropriate programs.
- Funding must be adjusted so that resources follow students in accord with their needs rather than programs.

These principles should be used to guide the development and maintenance of educational options.

Today's high school is in the middle of a transition from "mass education" to modes of instruction that are customized to encourage student achievement for groups and individuals. Educational policy within California must recognize this fact, then specify directions concerning modes of instruction, lifelong learning, instructional technology and adjustments of funding that allow schools to better meet the needs of individual students.

Modes of Instruction to Match the "Information Era"

The day-to-day processes of high school education must change to reflect the realities of our changing society. More often than not, today's schools are modeled after "industrial era" conditions in which manufacturing, centralized decision-making, mass production, standardization and conformity were guiding

principles for our lives.[8] Today's students, like factory workers, are moved *en masse* through standardized instruction, organized around a lecture-dominated process. This lecture-classroom model no longer matches the world that students experience beyond the high school campus.

Today, and in the future, the way that we live and work will become increasingly different from the conditions now prevailing in our schools. Information will be exchanged with a velocity that is many times faster and multi-dimensional than that conveyed through lectures. More importantly, the flow of ideas and information is likely to become more interactive. Whether by interpersonal conversation, long-distance telephones, fast-forward control of video tapes, or computerized instruction; today's youth live in a world where the exchange of information has become a two-way rather than a one-way process, and self-paced rather than centrally scheduled.

Passive learning via lecture must be deemphasized in favor of interactive and self-paced learning. Standardized instruction must be educed in favor of educational process and resources that allow students to learn "core" skills and knowledge in ways that are more compatible with individual interests and modes of learning.

The processes of education must be better synchronized with the "information era" as opposed to the "industrial era." Passive learning via lecture must be deemphasized in favor of interactive and self-paced learning. Standardized instruction must be reduced in favor of educational process and resources that allow students to learn "core" skills and knowledge in ways that are more compatible with individual interests and modes of learning. Teacher-led lectures and instruction should be deemphasized in favor of group learning and discussion that teaches communication and problem-solving skills, as well as specific knowledge and skills.

Recommendation 6

MODES OF INSTRUCTION TO MATCH THE "INFORMATION ERA"

The processes of secondary education should be modelled after the requirements of the "Information Era." Key elements include:

- Passive learning via lecture should be deemphasized in favor of interactive and student-centered learning.
- Standardized lectures and study plans should be deemphasized in favor of individualized study and approaches to achieving learning objectives that are sensitive to the context-orientation of students.
- Teacher-led lectures and discussions should be deemphasized in favor of learning activities that stress group problem solving, team work and interpersonal communication.
- The lecture and task-management role of teachers should be deemphasized in favor of a role stressing facilitating or "coaching" the pursuit of learning objectives.

The processes listed above, not the physical tools used during the process, are key elements of making education relevant to today's youth.

New instructional technologies will play a clear role in making educational processes more attuned to the "information era." However, the learning processes needed to prepare youth for tomorrow's world are independent of

[8] Daniel Bell, ***The Coming of the Post-Industrial Society***, Basic Books, Inc., New York, 1973, pages 47–121; and ***Educational Needs Assessment for California's Youth***, Pacific Management and Research Associates, Sacramento, May 1990, Chapter 2.

technology. These approaches can and should be applied with or without supporting technology.

It is important to note that the educational approaches proposed for the "information era" are not new. These approaches have long been applied through "non-traditional" or "alternative" education programs. While they have been used frequently to overcome barriers to learning among "high risk" youth, they have also been used to enhance the achievement of students not plagued by personal and socioeconomic disadvantages. Montessori schools, open classrooms, independent study and other similar techniques represent a rich and long-established heritage of educational approaches that work for *all* students.[9]

The timing of education, like our lecture-based process of instruction, has been shaped by the needs of industrial society. These conditions reflect the past more than the present or future.

Equally important, the "non-traditional" approaches recommended by this plan also reflect changes occurring in the world of work. For decades, there has been consensus that the most effective management styles include techniques such as participatory decision making, job-enrichment, quality circles, job rotation, applied learning, work team accountability, and multi-dimensional motivational systems.[10] These techniques are applied within America's most successful corporations—and by our most successful international competitors![11] They are more humane than more traditional management styles, but they do not abdicate accountability and performance. Their increased application reflects a more balanced perspective on how to motivate and organize employees, and an understanding that the transformation from industrial to service and knowledge work has made the world too dynamic and diverse to be managed by strict chain-of-command and standardized policies.[12]

The principles behind contemporary management styles and "non-traditional" education are fundamentally the same. The success of these principles in workplaces indicates their potential for improving the success of our schools. Further, the growing application of these principles in our economy makes it imperative that schools apply them to prepare today's youth to be tomorrow's workers.

Make Secondary Education a Stage of "Lifelong Learning"

An important element of educational options, and the future of high school education, is the timing of instruction. Indeed, there is cause to believe that we have allowed outmoded ideas about the scheduling of education to unnecessarily define many students, and the schools that serve them, as failures.

The timing of education, like our lecture-based process of instruction, has been shaped by the needs of agrarian and industrial society. During the late 19th century, public schooling was commonly scheduled for nine months of the year to allow students to be agricultural workers for summer harvests. As we evolved into a predominantly industrial society, formal education was completed in youth or early adulthood. For most, a high school diploma was all that was needed for a permanent career within an economy dominated by

9 John Holt, ***How Children Learn***, Pitman Publishing Corporation, New York, 1967; A.S. Niell, ***Summerhill: A Radical Approach to Child Rearing***, Hart publishing Company, New York, 1960; and Rolland G. Paulston, ***Non-Formal Education: An Annotated International Bibliography***, Praeger Publishers, New York, 1972.

10 Frederick Herzberg, Bernard Mausner and Barbara Snyderman, ***The Motivation to Work***, John Wiley and Sons Inc., New York, 1967; Douglas McGregor, ***The Professional Manager***, McGraw-Hill Book Company, New York, 1967; James O'Toole, ***Work in America***, The MIT Press, Cambridge, 1973; and Fred Best (Editor), ***The Future of Work***, Prentice-Hall, Publishers, Englewood Cliffs, New Jersey, 1973.

11 Thomas Peters and Robert Waterman, Jr., ***In Search of Excellence***, Harper and Row Publishers, New York, 1981.

12 Peter Drucker, ***The Age of Discontinuity***, Harper and Row, New York, 1969; Fred Best, "Preparing California's Workforce for the Jobs of the Future," Howard Didbury, Jr. (Editor), ***The World of Work***, World Future Society, Bethesda, Maryland, 1983; and Daniel Bell, ***op. cit.***, pages 121-267.

factories and manual trades. In this world, work was commonly scheduled from 8 to 5 each day, in a 40-hour work week. Employers wanted predictable work hours and punctuality. Thus, parallel day-to-day scheduling of schooling was viewed as good preparation for work.

Today, and in the future, the conditions determining the timing of education are different:

- **Need for Lifelong Learning.** Education no longer ends in youth or early adulthood. Regardless of how well students achieve in high school or college, social and technical change will require recurrent education throughout life.[13] All students must develop positive attitudes toward learning and a commitment to learning throughout life.

High school should be viewed as a learning stage in a lifetime of learning. Emphasis should be placed on whether students master core skills, not whether they graduate at age 18.

- **Educational and Skill Requirements will Increase.** In the future, most workers will require more than a four-year high school education. The complexity of our world and the skill requirements of most jobs are increasing.[14] A larger portion of our lives must be dedicated to education and learning.

- **Consecutive Schooling During Youth Is Inappropriate for Many Students.** Individuals clearly have different life timetables. Many students would benefit from flexible scheduling of education over the years of youth and early adulthood. There is evidence that skill development, maturity and educational goal setting are improved by combining or interspersing school with life and work.[15] Further, many youth find it desirable, and frequently necessary, to work prior to completing their education.[16]

- **Daily and Weekly School Hours Are No Longer Essential Socialization for Work.** It is more important that schools teach students how to take responsibility for their own performance than to maintain daily attendance records. The emphasis on most jobs has shifted to performance. Punctuality and attendance remain important, but primarily as a condition of doing a job well. Self-discipline and the ability to understand the requirements of a job have become essential as employers confront conditions too complex to manage by continuous oversight.[17] Further, current innovations concerning the flexible scheduling and location of work are also creating working environments where meeting deadlines is more important than standard work hours.[18]

The day-to-day scheduling of education should be more flexible to allow self-paced learning and integration of instruction with work and other activities. More important, high school education must be organized and understood as an initial stage of a lifelong process of learning that does not end arbitrarily at age 18.

---

[13] Fred Best, "Preparing California's Workforce for the Jobs of the Future," Howard Didbury, Jr. (Editor), *op.cit.*

[14] ***Workforce 2000: Work and Workers for the 21st Century***, Hudson Institute, Indianapolis, June 1987, pages 96–101.

[15] Ted Mills, "Work as a Learning Experience" and Barry Stern and Fred Best, "Cyclic Life Patterns," in Dyckman W. Vermile (Editor), ***Relating Education to Work***, Jossey-Bass Publishers, San Francisco, 1977, pages 87–101.

[16] Herbert Parnes and Andrew Kohen, "The Labor Market Experience of Non-College Youth," ***From School to Work***, National Commission for Employment Policy, Washington D.C., 1976.

[17] Fred Best, "The Nature of Work in a Changing Society," ***Personnel Journal***, January 1985; Phillip Slater and Warren Bennis, ***The Temporary Society***, Harper-Colophon Books, New York, 1954; and Alvin Toffler, ***Future Shock***, Random House, New York, pages 108–131.

[18] Fred Best, ***Flexible Life Scheduling: Breaking the Education-Work-Retirement Lockstep***, Praeger/Greenwood Publishers, New York, 1981; and Fred Best, "No Place like Home: The Office of the Future Could be Your Kitchen," ***Management World***, July-August 1986.

BEST COPY AVAILABLE

Recommendation 7

MAKE SECONDARY EDUCATION A STAGE OF "LIFELONG LEARNING"

The scheduling of secondary education should be made more flexible and organized as an early stage of ongoing "lifelong learning." The California *Education Code* should be changed to support the following:

- Expectations that a high school diploma must be earned by age 18 should be abandoned in favor of standard policies and options that allow and encourage students to earn a secondary degree at any age.
- The common practice of earning a secondary diploma over a four-year period should be replaced with widespread options for graduating by demonstrating mastery of skills and knowledge required for a diploma. Continue support of the California High School Proficiency Examination (CHSPE) or a CHSPE-like test to provide working and "bright but bored" students with an alternative to the traditional four-year period.
- Support, expand and adjust adult education "concurrent enrollment" programs so that they provide a campus-based and day scheduled "middle ground" for transitional adults to complete high school. Students should be allowed to remain in the same school and receive a diploma from that school at formal graduation ceremonies.
- Develop options to increase the flexibility for scheduling and completing courses and other educational activities over days, weeks and years (*e.g.* provide evening and weekend classes, concentrated classes, *etc.*).

These initiatives should be marshalled to create expectations that course completion and high school graduation require demonstrated mastery of required skills and knowledge, but that students have not failed if they have not completed these requirements by age 18.

We have compartmentalized education, work and leisure into stages of life that are proving to be dysfunctional. Youth is for education, mid-life is for work, and later life is for leisure. This "linear lifeplan" does not work today, and it will work even less well in the future.[19]

Our rigid approach to scheduling education may cause us to view students and schools as failures unnecessarily. While efforts have been made to loosen the time binds of high school education, a student who does not complete secondary schooling by age 18 is commonly viewed as a "failure"—a label that may become a socially imposed prophecy. At the school level, the "dropout" rate is defined as the percent of students who do not complete twelfth grade. It measures whether students stay in school rather than whether they attain needed skills. Such "dropout" figures cannot be ignored. They clearly represent a multitude of problems. Yet it is possible that our four year timeframe for high school is causing us to cry "failure" when there are only individual differences in the timing of learning.[20]

---

[19] Fred Best and Barry Stern, "The Lifetime Distribution of Education, Work and Leisure," ***Monthly labor Review***, July 1977.

[20] Attitudinal research indicates that many dropouts evidenced little difference in views, values, achievement and aspirations from their counterparts that did not drop out (David Stern, James Catterall, Charlotte Alhadeff and Maureen Ash, "Reducing the High School Dropout

High school should be viewed as a *learning stage* in a lifetime of learning. The high school stage should place emphasis on whether students master an essential core of skills and knowledge rather than whether they graduate at age 18. Whether individuals master core skills and knowledge by age 18 should not determine whether they are successes or failures, but whether they are certified to progress to a job or the next stage of education. By focusing on skills and knowledge rather than "seat time" and a standard age for graduation, accountability can be anchored in real learning achievement and success defined in terms of what a person wishes to do with his or her life.

Support the Evolution of Classrooms into Technology-Supported Learning Centers

Technology now allows us to create a learning environment for all students that until recently could only be provided to the most privileged.

Technology now allows us to create a learning environment for all students that, until recently, could only be provided to the most privileged.

This plan proposes that long-term initiatives be undertaken to shift the focus of high schools from classrooms, lectures and periods of instruction to "learning centers." These centers would enable students to attain core skills and knowledge through access to self-paced educational modules that use many modes of instruction. These centers also would be organized to instill a sense of community and belonging among students.

The learning environment proposed in this plan would mobilize educational resources around individual students, not mobilize students around resources. It would use multiple and inter-linked modes of instruction designed to instill self-direction, stress personal accountability for learning, build upon each student's unique strengths, and ensure that no student is "lost between the cracks" or allowed to achieve below his or her potential.

Each center would be a "home base" for about 200 students.[21] Centers might take the physical form of a large library or hall with a variety of special purpose rooms and offices attached. The central room would have a study carrel for each student. Each carrel would have a computer work station with access to district and center resources. The rooms and offices built off the central hall would be faculty and counseling offices, storage and check-out rooms for instructional resources, and a variety of rooms dedicated to alternative modes and areas of instruction (*e.g.* lectures, discussions, group projects, multi-media).[22]

Faculty and staff would function as a semi-autonomous team with the goal of achieving the learning goals specified by the state and district. These staff would be recruited and organized to provide a portfolio of overlapping and complementary skills that can be mobilized to meet the evolving needs of their students (*e.g.* knowledge of instructional areas, lecturing, counseling, educational technology, facilitation of discussions, community outreach).

Instruction would be based upon the learning goals specified for an augmented "core curriculum" as well as objectives for a variety of "electives." These goals would provide a basis for developing a variety of learning modules for different areas of learning. These modules would provide students with

Rate in California: Why We Should and How We May," ***Opportunities for Vocational Education in the Education Reform Act of 1983***, 15th Annual Report, California Advisory Council on Vocational Education, Sacramento, 1985.)

[21] This restricted size is intended to promote a sense of connectedness between the individual student and school and thereby meet the goals of proposed "small schools" and "schools within schools."

[22] ***Schools for the Twenty-First Century***, California Department of Education, Sacramento, 1990; and Abi Slayton, ***Facilities for the Future***, Adult Education Institute, Sacramento, May 1991.

alternative approaches for attaining required skills and knowledge through a series of steps monitored by assessment of achievement. Students would be given substantial freedom to select and experiment with alternative modes of learning, and to time the completion and sequence of their learning activities.

Electronic information systems linked to each student's work station would provide the mechanism for integration and accountability. These information systems would use the proposed *Student Access Card* (**see Recommendation 12**) and *Integrated Data System* (**see Recommendation 18**) to monitor student activities and achievement so that teachers and guidance staff can counsel and guide them as appropriate. Under these conditions, center staff would spend less time lecturing and grading, and more time reviewing student progress and facilitating student choice of learning resources.

This plan proposes that long-term initiatives be undertaken to shift the focus of high schools from classrooms, lectures and periods of instruction to "learning centers."

Recommendation 8

SUPPORT THE EVOLUTION OF CLASSROOMS INTO TECHNOLOGY-SUPPORTED LEARNING CENTERS

Classroom instruction dedicated to "courses" of instruction should be deemphasized in favor of "learning centers" providing a variety of options for completing the requirements of the "core curriculum" and electives. These centers should have the following characteristics:

- Learning centers should be organized to support a sense of community and belonging among students. Each center should be small enough to encourage community and inter-personal communication. The student make-up should reflect the demographic mix of the local community.
- Instruction would be built around a variety of learning modules based on the learning goals specified in an augmented "core curriculum" (**see Recommendations 1 and 2**).
- Learning centers should have a balanced variety of staff, equipment, facilities and resources to provide easy access to multiple approaches for completing educational requirements and exploratory learning (*e.g.* lectures, discussion groups, interactive video, multi-media, group projects, computer assisted instruction, individual study).
- Student participation, achievement, and use of learning modules should be integrated with the support of electronic information systems. Each would be monitored by designated "mentor staff" with the assistance of Student Access Card (**see Recommendation 12**) records for attendance and equipment use. Each student would be empowered to pursue learning activities in accord with his or her Personal Education Plan (**see Recommendation 10**). Students would be assessed and counseled regularly to determine learning progress and needs (**see Recommendation 11**).

These centers would provide a common base of operation to encourage group and social activities while also allowing extensive individual choice concerning approaches to learning.

Where possible and appropriate, efforts to implement this recommendation should be undertaken in the auspices of the "model schools" proposed in the federal *America 2000* initiatives.

A key element of the proposed "learning centers" is that they provide a community of learning. It would be possible for students to move among different centers (*e.g.* special study, lecture or discussion groups), and possibly to have centers organized around special interests (*e.g.* science, vocational studies, arts and humanities). However, constant efforts would be made to assign students so that the demographics of each center reflects the student population of the local community. Each center would have the staff and resources to allow individual students to learn at their own speed and potential. Thus, achievement and motivation would be maintained while keeping all students in a "mainstream" that enables them to learn through a mode and schedule best suited to individual needs.

A number of technological advances make the proposed "learning center" concept viable. Some of these include:

A key element of the proposed "learning centers" is that they provide a community of learning.

- **Increased Speed, Capacity and "User Friendliness" of Computers.** Micro-computer advancements have led to major gains in computing speed, extensive capacity to store information, and ease-of-use for non-technical persons. This means that these tools can be used by anyone for rapid interactive learning and information retrieval.

- **Multi-Media Technology.** Computer, film, video tape and information storage technologies have been developed to allow highly integrated graphics, motion, sound, color and verbal presentations to meet specific individual needs.[23]

- **Advances in Educational Software.** Educational software is becoming increasingly interactive and pictorial, and it is available for ever-growing areas of learning.

- **Digitized Information and Graphics.** Economically accessible technology now exists to digitize text and graphic images so they can be electronically stored and recalled for monitor display and laser printer reproduction. This enhances our capacity to prepare customized instructional materials and allows easy electronic storage and access to student portfolio work.

- **Resources for Teacher Development of Educational Technology.** Software programs and supporting hardware exist that allow teachers to develop their own educational software and multi-media presentations with minimal effort.

- **Capacity to Transfer Information and Resources via Telecommunications.** Computer networks, laser disk libraries and telecommunications enable schools, and even students at work stations, to easily "download" information and educational programs from across the country or from the local district office. This enables schools to provide an abundance of technology-supported instruction with real "economies of scale."

- **Integration of Learning and Assessment.** Many educational software programs integrate learning, drill and skill assessment—a development that can help schools better monitor the progress of students.

All of these technologies are available today, and all of them will be more refined and less expensive tomorrow. Economies of scale makes it possible to apply them today, and enhance them in the future.

[23] "It's a PC, It's a TV—It's Multi-Media," ***Business Week***, October 8, 1989, pages 132–166.

A number of non-technological developments also support movement away from the traditional classroom to the "learning center" concept:

- **Team Teaching.** Many schools encourage "team teaching"—an approach by which teachers trade off roles and lectures to use their strongest skills and best preparation in the educational process. Such practices have also been supported by teaching aides, parents, volunteers and community resource people. This provides a foundation for the type of staff arrangements required for "learning centers."

- **Standardized Skill Assessment Tests and Procedures.** Ongoing efforts are being made to improve alternative skill assessment tests and procedures that can create a common standard of achievement for students using alternative modes of learning within "learning centers." Additionally, computer and software companies are currently working on instructional technologies that will integrate assessment with interactive learning.

- **Experience with Alternative Modes of Instruction.** Experience with alternative modes of instruction (*e.g.* independent study, contextual instruction, group learning) is well established. Expertise for these approaches is well developed within California's teaching profession.

A critical element of the proposed "learning centers" is that they provide a way to ensure that students do not "fall through the cracks" in terms of participation or achievement.

A critical element of the proposed "learning centers" is that they provide a way to ensure that students do not "fall through the cracks" in terms of participation or achievement. Each center would be organized and run within the context of the surrounding school, district and state. Information technology makes it possible to monitor students as they pursue a variety of educational options. Students will be free to pursue many different paths to learning. Common measures of achievement and participation, and electronic records for each student tied to instructional resources will allow day-to-day assessment of individual and program performance. Thus, students, parents, teachers, principals and superintendents will be able to identify how students are progressing *en masse* and as individuals.

The "learning centers" proposed in this plan are a fundamental departure for public high schools. This recommendation proposes a shift from a lecture and class period-based system that organizes students around resources to a flexible system of modular components that allows resources to be organized around individual students. Despite the magnitude of this change, we have the tools and expertise to do it. The components required for this proposal are here today and will be more accessible tomorrow.

Test Linkage of Funding to Individual Students in Accord with Needs

Marshalling education to meet individual needs requires new approaches to funding. This is particularly true for students with special needs (*e.g.* learning disabilities, teenage parents, disadvantaged backgrounds or exceptional talents).

In the past, we have set up "categorical programs" for groups of students with special needs. Put differently, we have established new educational organizations for selected student groups, then assigned "eligible" students to those programs. We have organized students around resources.

In the future, funding should enable schools and districts more flexibility to tailor the delivery of instructional services to the individual. To do this, we must attach funding for special needs to the individual, not the program. This

can be done by developing a student classification system that assigns additional funding to students according to individual needs. Schools and districts can then use these added funds to tailor services for individuals or groups—whichever is more appropriate.

Recommendation 9

TEST LINKAGE OF FUNDING TO INDIVIDUAL STUDENTS IN ACCORD WITH NEEDS

Test new approaches for funding Categorical Programs by establishing a point system to ensure that revenues follow individual students on the basis of need:

- Establish a base funding level for students without special needs (*e.g.* 100 points for average student).
- Establish a classification system that assigns funding points to individual students in accord with documented special needs (as an illustrative example, 50 points for specified learning disabilities, 20 points for poverty status, *etc.*) This point system will be weighted to reflect the actual costs of meeting special needs.
- Allocate funding to school districts by paying a set dollar amount for the aggregate funding points generated by enrolled students. Funding provided for each point of student need should be adjusted to reflect geographic cost differences in accord with the consumer price index.
- Ensure that funding allocated to an individual student in accord with the point system "follows" that student to programs he or she attends.
- Explore the viability of expanding application of *Assembly Bill 777* to allow lumping of categorical funds within a wider range of programs and schools.

This funding strategy would augment funding for special needs, provide school districts with maximum flexibility to respond to "individual" needs, and empower students and parents by linking funds to specific students.

Linking special funding to individuals allows the continuation of existing categorical programs, while also allowing use of added funds in ways that might better meet the needs of individuals.

Linking special funding to individuals allows the continuation of existing categorical programs, while also allowing use of added funds in ways that might better meet the needs of individuals. For example, it may be better to "mainstream" a learning disabled student, but provide the home-room teacher (or learning center) with a special assistant to provide guided tutoring. Some schools may be too small to set up full categorical programs, and it may be better to use augmented funding to individual or small group services. Finally, individuals "eligible" for multiple "categorical programs" could receive full services, as opposed to choosing one out of several programs.

Linking special funding to individuals also increases accountability. If funds follow eligible individuals to programs, then programs can be held responsible to providing a return on extra dollars. If added funding is attached to individuals, students and parents are empowered to seek instruction from other options if positive results are not obtained.

Movement toward linkage of special funds to individuals has already occurred in the form of the "School-Based Coordination Plan" established by *California Assembly Bill 777*. This allows categorical funds to be lumped to improve services. Further steps to invest funds with individuals could increase school flexibility to better meet the specific needs of each student.

Facilitate Student Choice and Achievement

A critical element of educational options is choice to pursue the approaches to learning that promise the greatest achievement. Students and parents must have the ongoing opportunity to review available options, then move among these options in accord with their needs, abilities and achievements.

Students and parents must have the ongoing opportunity to review available options, then move among these options in accord with their needs, abilities and achievements.

This plan proposes that the processes of choice and movement become the focal organizing principle for a system of educational options. Three recommendations are put forth to facilitate student choice and achievement:

- Personal Education Plans (**PEPs**)
- Comprehensive Counseling, Guidance, Placement and Certification Services
- Student Access Card

These three recommendations, when linked to other parts of this plan, are intended to use information technologies to create a kind of market-process within schools that organizes resources around individual students rather than students around resources.

Personal Education Plans (PEPs)

There should be a focus for setting student goals and a consistent source of information about each student's achievements and goals. This is especially important for an educational system that allows individuals choice concerning the modes, timing and emphasis of their instruction.

If we allow students to move freely among a variety of educational options, we must ensure that there is one, easily accessible source of the student's achievement, status and objectives.

Personal Education Plans (**PEPs**) should be established and regularly updated for all students. These plans should be created for each student no later than 8th grade and follow a standard format, established by the California Department of Education (**CDE**). The PEP would include:

- Summary of the student's educational achievements (e.g. skill assessment scores, courses completed, grades)
- Summary of aptitudes, aspirations, and preferred modes of learning
- Statement of short and long-term educational objectives
- Signed student-parent-school contract for meeting learning objectives for one year

Each student's *Personal Education Plan* (**PEP**) would be regularly reviewed and updated once or twice a year, or as the individual needs of students dictate.

Recommendation 10

PERSONAL EDUCATION PLANS (PEPS)

Every student should have a Personal Education Plan (**PEP**). This plan would include the following in standardized form:

- Statement of the student's documented skills, knowledge and educational attainment based on an annual summary of completed courses, grades and results of standardized skill assessments.
- Statement of long and short-term educational objectives based on the student's goals and assessments of educational achievements.
- Summary and assessment of each student's personal behavior, individual learning style, self-esteem, and self-concept.
- Specification of support resources needed to ensure each student's educational success (*e.g.* child care, transportation, health care, lunch program).
- Signed agreement with the student, parents and school concerning specific educational activities and outcomes to be undertaken over the next year.
- Semi-annual and special reviews and updates of Personal Education Plans.

Personal Education Plans will be reviewed once or twice every year by the proposed Comprehensive Counseling Placement and Certification Services (**see Recommendation 11**). Plans should also be reviewed and updated upon student request or development of special circumstances. Each student's Personal Education Plan should be stored on the proposed Student Access Card (**see Recommendation 12**). Staff should be trained in the effective development of PEPs.

*It is one thing to establish Personal Education Plans (**PEPs**) for all students, but another to manage them effectively and efficiently.*

It is one thing to establish *Personal Education Plans* (**PEPs**) for all students, but another to manage them effectively and efficiently. Plans and records must be carefully summarized, and must be accessible with a minimum of effort. It is critical that *Personal Education Plans* be backed up with viable counseling services and that access to these plans be expedited with state-of-the-art information technology.

Comprehensive Counseling, Guidance, Placement and Certification Services

A successful system of educational options requires that students and parents be provided with comprehensive, impartial and easily accessible information about available options. Students must also be helped to choose programs that best meet their needs. Most schools have many excellent programs, but it is often difficult to get an overview of available options. Further, many students do not receive adequate assessments of their educational achievements and learning needs to help them choose among alternative programs. As a result, the value and ultimate performance of existing educational options is undercut by the inability of users to find the options that best suits their goals.

We propose that upgraded *Comprehensive Counseling, Placement, Guidance and Certification Services* be established to provide individuals with assessments of their educational needs and impartial information about all available learning options. These services would use state-of-the-art information technology to access existing individual educational records and information about programs, most notably, the *Personal Education Plan* (**PEP**).

We propose that upgraded Comprehensive Counseling, Placement, Guidance and Certification Services be established to provide individuals with assessments of their educational needs and impartial information about all available learning options.

Recommendation 11

COMPREHENSIVE COUNSELING, GUIDANCE, PLACEMENT AND CERTIFICATION SERVICES

All schools and districts should develop counseling, guidance, placement and certification services to provide the following:

- Assessments of individual skill and knowledge attainment, learning style, personal needs, and career and educational goals.
- Review of student needs for support services (*e.g.* health care or transportation) and special services to overcome chemical dependence, family problems and other barriers to learning.
- Semi-annual and special reviews and updates of Personal Education Plans (**see Recommendation 10**).
- Impartial and comprehensive information about the availability and quality of educational options.
- Assistance in choosing and enrolling in the educational options that best meet individual needs.
- Certification of skill and knowledge attainment.
- A clearinghouse for centralizing non-school background information on individual students (*e.g.* health records, immunization, or eligibility for non-school support services).
- Linkage to a statewide computer network to facilitate transfer of individual records to new schools and sites.
- Case management followup and intervention to ensure integrated delivery of needed programs and services to each student.

These services should be sensitive to student needs and family situations. These services should be staffed by professional guidance staff and specially trained guidance personnel (*e.g.* teachers, administrators). A local and statewide computer system should be developed to facilitate these services and maintain the personal privacy of students.

Where possible and appropriate, actions to implement this recommendation should be integrated with the "skill center" concept proposed in the federal *America 2000* initiatives.

The educational counseling, placement, guidance and certification services would provide the following:

- Provide standardized assessments of educational needs and certification of demonstrated skills and knowledge.
- Conduct semi-annual reviews and updates of each student's Personal Education Plan (**see Recommendation 10**).
- Provide students and parents with impartial information and guidance concerning the nature and quality of educational options.
- Publicize and improve understanding of available educational options.
- Provide "user friendly" resources to access information about available educational options (*e.g.* application of interactive computer systems with graphics, multi-lingual options and voice control to ease use).
- Develop and maintain data concerning enrollment trends, learning achievement of students, individual participants, and available openings among educational options.

If there is to be a smooth and appropriate flow of students among educational options, it is critical that educational staff have quick and easy access to standardized records about individual students.

Each service location would be counselor-supported and provide all students with the information needed to make intelligent choices about their educational activities.

Student Access Card

If there is to be a smooth and appropriate flow of students among educational options, it is critical that educational staff have quick and easy access to standardized records about individual students—most notably the proposed Personal Education Plans (**PEPs**). It is also important that these student records be transferred quickly and accurately across school districts, the state, and to employers seeking to hire high school graduates.

Students should be issued credit-card devices with electronic storage chips to facilitate the flow of student information. These *Student Access Cards* would be progressively issued to all high school students. It would use state-of-the-art information technology to efficiently facilitate the storage and access of individual educational records, serve as a "walking diploma" capable of documenting qualifications for employment and further education, provide a common denominator for collecting data on participation and performance among educational options, and serve as a critical link for monitoring students.

The most advanced application of this concept has been the *Michigan Opportunity Card*. Trial use of this card began in 1988 for adult training and education. This is a plastic card with an embedded memory chip to store and provide selective access to student records from a variety of training agencies. It is also used to dramatize the availability of services to adults, and to empower individuals as educational consumers capable of exerting market forces on the development and delivery of education and training.[24]

The *Student Access Card* concept also has potential beyond the primary purposes described above. Most notably it provides a central mechanism around which existing educational options could begin a process of coordinating program elements, rationalizing funding equity, and streamlining data storage procedures. This concept also opens exciting possibilities for creative resource

[24] ***The Michigan Human Investment Fund and the Michigan Opportunity Card***, Office of the Governor, State of Michigan, January 1988.

matching arrangements (*e.g.* a business consortia could provide half the funds for the first 300 qualified individuals to enroll in a training area of local priority). Finally, the card also provides a mechanism to reduce the paperwork of teachers and assist schools to more efficiently receive funding.

Recommendation 12
STUDENT ACCESS CARD

Explore viability of issuing a credit card-like device to each student that uses local and statewide computers to:

- Link to local and statewide Integrated Data Systems (**see Recommendation 18**).
- Establish a common link for monitoring students and storing Personal Education Plans (**see Recommendation 10**).
- Facilitate access and store individual educational records (*e.g.* courses completed, assessment test scores, certifications, health and immunization records, standardized transcripts, *etc.*).
- Reduce duplication of training and assessment.
- Ease process of determining eligibility for special services.
- Use a common format to report individual educational records from multiple educational options.
- Provide an efficient electronic media for collecting and matching private donations with public education funds.

This card would also dramatize the availability of educational options and provide students with a sense of ownership over their educational achievements.

A better process must be developed not only to implement this plan, but to continually develop and renew our schools.

The *Student Access Card* concept is currently being pioneered under the name *EduCard*$_{TM}$ within California by adult education programs. It is currently undergoing feasibility tests and will be pilot tested sometime during 1991–1992.[25]

Enhance Staff and Program Support

The success of the proposals put forth in this plan requires more than new equipment and facilities—it will require major adjustments in the ways teachers, guidance staff, administrators and community stakeholders carry out the activities of our high schools. New skills and perspectives must be developed, and existing relationships between students and schools must be determined.

A better process must be developed not only to implement this plan, but to continually develop and renew our schools. Staff must be trained and updated. Investments must be made in equipment and facilities to avoid obsolescence.

[25] Dennis Porter, ***Prospectus to Pretest Technology for the Adult Education Access Card (EduCard$_{TM}$)***, October 1990, and ***EduCard$_{TM}$: Policy Option Paper on Strategic Recommendation 4***, Adult Education Institute for Research and Planning, Sacramento, March 1990.

This plan proposes four recommendations to enhance staff and program development:

- Participative Management Within Schools and Districts
- Staff and Program Support for Innovation
- Initiatives to Increase Use of Educational Technology
- Encourage Racial and Ethnic Diversity Within Teaching Staffs

These four recommendations are designed to assist teachers and other educational staff in preparing for the 21st Century. They are elaborated within the following pages.

Development of an effective educational system not only requires collaboration among stakeholders, it also means more school level participation in management, and greater autonomy within schools.

Participative Management within Schools and Districts

Development of an effective educational system not only requires collaboration among stakeholders, it also means more school level participation in management, and greater autonomy within schools. Although school-based management is a fairly new concept, it is being backed by business in several cities across the nation.[26] The basic premise is that pushing authority down into the ranks creates better results, higher levels of cooperation and commitment, and creative solutions to problems. It is a school reform in which principals and teachers, not politicians, set budgets and shape curriculum.[27]

Under current conditions district boards are so focused upon financial and bargaining issues they are unable to give real community input to individual schools. The distance between parents and the district, and teachers and the district is great. In large districts, policy making is far removed from the daily operations of schools. More than 30 percent of California's 5 million students attend school in districts with enrollment greater than 20,000 students.[28]

Traditionally, most of education is managed through a top down technique. Teachers, principals and parents are rarely involved in policy development or decision making—decisions they will have to teach by and live by. Efforts to gain parental participation are often limited to involving parents in an advisory capacity. Parents quickly realize that "advisories" have very little impact on school and district policy.[29] If the outcomes of our secondary educational system are to improve, parents must be brought into a position of direct influence over the school's programs (**see Recommendation 20**). The role of the teacher to engage parents in their child's education is reasonable. However, neither teachers or parents have the ability to impact the decisions that frame the educational systems they are expected to participate in and support.

This recommendation proposes a more participatory management system where schools are given more autonomy.

Typically, teachers do not participate in long-range planning at the district or school site level, they are not involved in the development of district policies and regulations, and they frequently have restricted input in the selection of

[26] Brian Dumaine, "Making Education Work," ***Fortune***, Spring 1990, pages 12–22.

[27] ***Ibid.***, page 14.

[28] ***Restructuring California Education: A Design for Public Education in the 21st Century***, Recommendations to the California Business Roundtable, *circa* 1985–86, page 125.

[29] ***Ibid.***, page 124.

textbooks or new teachers.[30] Further, teachers lack authority over decisions affecting their own classrooms. A teacher's ability to determine instructional techniques, develop and plan student learning activities, and evaluate students varies greatly from school to school.[31]

Parents, teachers and principals must have real authority, not just "participation".

Recommendation 13

PARTICIPATIVE MANAGEMENT WITHIN SCHOOLS AND DISTRICTS

Local schools and districts should apply participatory management techniques to involve teachers, guidance staff, administrators and other staff in joint planning and implementation of educational options. Schools and districts should:

- Establish joint administrative-teacher-business-parent-student task forces to review, recommend and implement district policies.
- Establish teams of teachers to develop, review and recommend educational policies, with discretion to implement selective polices.
- Involve teachers, parents, guidance staff, support staff, students and community leaders as active participants in long-term district and school site planning.
- Allow maximum flexibility to teachers in choosing teaching methods to meet learning goals.
- Encourage "teacher entrepreneurship" in developing new educational approaches.
- Involve the business community in providing technical assistance in the application of participative management experience to school systems.

These and other techniques should be used to encourage open communication and a sense of school-wide team work.

The powerlessness of teachers is important because it adversely affects the educational system. A redefining of roles within the district places greater responsibility on the schools and greater accountability for the performance of the school and students. A revised system of management is necessary for these changes to work effectively. Parents, teachers and principals must have real authority, not just "participation" (**see Recommendation 17**). It can not be expected that all teachers, parents and principals possess the skills required to effectively participate in this type of management. Skill development and training will be needed.

A participatory management style goes beyond symbolic involvement. In order to hold principals, teachers, and guidance staff responsible for the quality of our youth's education, they must be allowed to make decisions. They should recommend and review policies and regulation, and be given maximum flexibility to explore and use new teaching methods in the classroom.

30 *Ibid.*

31 *Ibid.*, page 128.

Staff and Program Support for Innovation

Educational staffs—whether they be teachers, guidance staff, administrators or support staff—must be given ongoing resources, opportunities and encouragement to make the changes and innovations necessary for the 21st Century.

A more systematic and comprehensive effort is needed to provide program and staff development support.

Recommendation 14

STAFF AND PROGRAM SUPPORT FOR INNOVATION

Sustain and modernize state-administered services to assist educators in program design, curriculum development, staff training, and program review. These services should provide:

- Workshops, conferences, newsletters and regional technical assistance.
- Participatory seminars and workshops to review and redefine the roles of the teacher in tomorrow's school.
- Toll-free technical assistance number for teachers and guidance staff
- Modem-linked computer bulletin boards with capacity to download information and software.
- Expert systems software (*e.g.* interactive learning and counseling programs for educational staffs).
- Video tapes and TV courses for educators.
- Technical assistance for long-term planning, use of instructional technology, and gaining community support for innovation.
- Teacher Institutes for specific subject groupings (*e.g.* math, civics, *etc.*).
- Review and adjustment of teaching and guidance training programs to provide skills for participative management, alternative educational techniques, counseling, brokering support services, and use of the proposed Personal Education Plans (**PEPs**).
- Involve business community in providing training in the areas of staff development, productivity measurement, accountability, participative management, and decision making.

These services should have followup mechanisms to guide program development with participant feedback. Schools should provide paid time for teachers to take advantage of these services.

A more systematic and comprehensive effort is needed to provide program and staff development support. Teachers and guidance staff of the future will need better curricula, knowledge of modern instructional methods and educational technologies, sensitivity to individuals from different ethnic and cultural backgrounds, understanding of evaluation, and feedback on their own performance. Ways also must be found to train and assist teachers who must "tool-up" rapidly for swiftly changing needs. School administrators will need to keep abreast of new instructional approaches, technological advances and techniques for involving teachers and other staff in the planning and

implementation of innovation. Support staff—health technicians, custodians, computer specialists—must also be prepared for the changes required by our times.

This plan proposes a vigorous state-led effort to provide technical assistance and program support to teachers, administrators and guidance staff. Top curriculum experts, many from local districts, would use learning goals specified in California's "core curriculum" to develop a variety of learning modules tailored to meet the needs of individual learning styles and different cultural backgrounds. Attention would be given to harnessing the technologies and learning resources of the future. Technical assistance and dissemination should be provided to help teachers use these curricula or learning modules, and assess student learning using their own and standard performance measures. State-of-the-art technology will be used to provide a computerized clearinghouse and expert system software to provide teachers and administrators with easy access to information about model programs, educational advisors, teaching resources, and instructional techniques appropriate to diverse situations.

We must use technology to move our high schools boldly into the future.

The delivery system for these services would incorporate a feedback system to help teachers and administrators find out what methods are working in their district.

California's high schools must make bold changes to meet the needs of the 21st Century. But these changes cannot be undertaken without the understanding, commitment and contributions of the people who run our schools on a day-to-day basis. The staff and program support proposed by this plan has been designed to enlist and prepare today's educational staffs for the changes of the future, and to create an ongoing process of education and involvement that supports of renewal and improvement within our schools.

Initiatives to Increase Use of Educational Technology

We must use technology to move our high schools boldly into the future. However, we must do this in ways that utilize fully the technologies we purchase, and maximize opportunity for ongoing improvements.

We need to move dramatically, but we also need to establish an ongoing process for using technology to review and improve our schools continually. First and foremost, we must define guiding goals and principles for our high schools—a task which is addressed by other sections of this paper. Second, we must initiate state and local processes for using technology to implement these goals and principles. This includes increasing awareness of current and forthcoming technologies, assessing the opportunities and constraints of integrating new technologies into our schools (*e.g.* connectivity, legal barriers), determining short- and long-term cost-effectiveness of technologies, selecting and procuring new technologies, encouraging full assimilation and use of instructional technologies, and vigorously evaluating the impacts of technology to build constructively on both successes and failures.

In broad brush strokes, initiatives to increase use of educational technology must address three priority barriers. First, major complications must be overcome concerning the integration of new technologies with old technologies and existing modes of instruction. In many cases, overcoming this first barrier will entail use of technology as a change-agent to improve our existing instructional tools and processes. Second, ways must be found to procure the funds and resources needed to invest in needed instructional technologies. Third, and most important, we must find better ways to ensure that the

technologies we do procure are fully understood and used by students and teachers.

Recommendation 15

INITIATIVES TO INCREASE USE OF EDUCATIONAL TECHNOLOGY

The California Department of Education should undertake a variety of initiatives to increase the use of educational technology. These initiatives should:

- Provide technical assistance to support development of technology plans. These plans would target areas of instruction for technological upgrading, specify options for applying technology, develop criteria for selecting technology, integrate new and old technology, prioritize training needs, assess funding needs, and determine cost-benefit implications.
- Establish Technology Teacher Training Academy that would provide a series of workshops, courses and onsite training sessions to assist teachers integrate technology with curriculum plans, clarify instructor roles in using technology, and train for the use of technologies.
- Add "computer literacy" to pre-service teacher credential programs.
- Collaborate with private companies to encourage development of educational software that supports "core curriculum" and common electives.
- Prioritize work specified by California's *Educational Technology Act.*
- Provide a "consumer service" that evaluates available educational technology in terms of "user friendliness," cost, cost-effectiveness, pertinence to "core curriculum," and other criteria.
- Work with business and other stakeholders to develop a public-private investment fund to finance technological innovation within schools and involve business expertise in the selection and use of instructional technology.

These and other initiatives should be undertaken to encourage informed procurement and use of educational technology.

It is generally acknowledged that today's high schools lag behind most other sectors of our society in terms of the application of technology. At root, education and learning are "labor intensive" processes. There will never be a replacement of the human factor in our high schools. Yet, technological innovations provide important opportunities. Technologies can relieve teachers and other staff of many routine duties and, in many cases, provide learning experience previously inaccessible to students. By doing this, teachers and staff can be freed to concentrate on elements of education for which there is no human substitute—advising, person-to-person discussions, encouragement, working with parents.

The fact that today's high schools lag behind in the use of technology may be an unparalleled opportunity. The absence of existing technology means there is little of an existing infrastructure to be revised or discarded. Once we agree on what must be done, we can use technology as a major agent to improve our schools.

Encourage Racial and Ethnic Diversity Within Teaching Staffs

The growing ethnic and racial diversity of our student population must be matched with similar diversity in the teaching staffs of our schools. This is necessary for two reasons. First, teachers from the same ethnic and racial groups as students are likely to have an understanding of and better rapport with, students. Second, it is important that students have living role models of success from teachers from the same racial and ethnic group.

The growing ethnic and racial diversity of our student population must be matched with similar diversity in the teaching staffs of our schools.

Recommendation 16

ENCOURAGE RACIAL AND ETHNIC DIVERSITY WITHIN TEACHING STAFFS

Racial and ethnic diversity must be encouraged within teaching and other school staff in order to provide students with role models and instructors with the background to understand racial and ethnic issues:

- Encourage the training of teachers from under-represented racial and ethnic groups by active recruitment and support programs.
- Develop programs to recruit and encourage volunteer and assistant teachers from under-represented racial and ethnic groups by providing pay incentives and credit toward teaching degrees.
- Pursue efforts aggressively to recruit and hire qualified teachers from under-represented ethnic and racial groups.
- Enlist high-achieving high school and college students from under-represented racial and ethnic groups as paid teaching aides or provide elective credit.

Continued effort must be made to ensure that every opportunity be extended to prospective teachers from under-represented groups while maintaining high training standards.

A number of initiatives must be undertaken to increase the ethnic and racial diversity of teaching staffs. College students from under-represented racial and ethnic groups should be encouraged to pursue teaching careers through active recruitment and support systems.[32] Schools should encourage use of volunteer and assistant teachers from under-represented social and ethnic groups, and pursue aggressive efforts to hire teachers from under represented social and ethnic groups. Finally, schools should set up programs that stimulate interest in teaching among high-achieving students from under-represented racial and ethnic groups by giving them paid, part-time jobs as teaching assistants.

[32] While recent rulings have restricted use of scholarships and educational loans for such purposes, these incentives should be used when legally possible.

Efforts to increase the racial and ethnic diversity of teaching staffs must also maintain high standards for training and hiring. If we are to improve the skill attainment of our students, we cannot compromise in the standards for our teachers.

Improve Planning, Coordination and Linkage

The major challenge of creating a "system" of educational options is to find ways to integrate and coordinate options. Options must reinforce each other in supporting common educational standards. They must enable students to move easily among options to meet their needs.

The major challenge of creating a "system" of educational options is to find ways to integrate and coordinate options.

The types of planning, coordination and linkage proposed in this plan are different from the common view of these activities. Emphasis is placed on the design, development and maintenance of an accountability-driven infrastructure that gives schools, teachers and students substantially greater freedom to pursue "core" educational goals. This plan does not envision central decision councils at the state or local level that decide specifically what is taught and how, who teachers and where, and where and how students learn. Rather, we propose that state and local stakeholders work together to (1) define educational goals in terms of "core" skills and knowledge, (2) determine "minimal" standards for learning environments, (3) find ways for the state to apply "economies of scale" in developing educational services, (4) establish common procedures for students to move among educational options, and (5) agree upon the measures and implications of accountability for both schools and students.

This section presents five recommendations to improve planning, coordination and linkage among educational options:

- State and Local Planning Councils
- Integrated Data System for Programs and Individuals
- Linkage of Support Resources
- Encouraging Parental Involvement
- Business Compacts to Support Jointly Determined Educational Standards

The following pages will outline and discuss each of these five recommendations.

State and Local Planning Councils

To be effective, long-term planning must make institutional renewal an ongoing process. The state and local school districts should always be "in the first year of their long-term plan." Ways must be found to institutionalize an ongoing participatory process that develops effective responses to long-term problems and opportunities.

We propose that state and local planning councils be established to advise concerning the long-term future of educational options and the high school. These councils would be removed from direct decision making and administrative responsibilities. They would be linked to state and local decision makers, but would be advisory. They would have broad-based membership—educators, business leaders, parents, and other stakeholders. The mission of these councils would be to develop a long-term consensus on

problems and opportunities, and to develop fundamental and innovative ways to improve and renew our schools. Every effort should be made to support these councils with professional staffs.

We propose that state and local planning councils be established to advise concerning the long-term future of educational options and the high school.

Recommendation 17

STATE AND LOCAL PLANNING COUNCILS

Planning Councils should be established at state and local levels to recommend long-term approaches for coordinating and integrating educational options. Existing bodies should be modified or new councils created to have the following characteristics:

- Be removed from direct decision-making power to encourage long-term problem solving.
- Report directly to state and local decision makers and decision making bodies.
- Be composed of broad-based membership including representatives of business, labor, students, parents, community organizations, and all major educational options.
- Prepare regular long-term plans concerning the coordination and integration of educational options and community support services to meet educational goals and standards.
- Have access to professional staff support to prepare background research and refine policy recommendations.

These State and Local Planning Councils should provide a forum for initiatives to think systematically about educational options and the long-term future of high schools.

A key role of these councils will be to provide a highly visible forum for ongoing debate and consensus-building among stakeholders over how to galvanize a continual spirit of innovation and renewal among our schools.

Integrated Data System for Programs and Individuals

Good data and information about students and programs is a critical cornerstone of effective planning. Data on programs and students are largely useless unless they can be consistently stored and accessed for review and analysis. Information about the educational options available to students is useless unless it can be accessed in ways that allow comparisons. Data and plans concerning individual students cannot help teachers unless it can be retrieved as needed. Finally, the capacity to demonstrate the performance of varied educational options to business, students, and taxpayers requires an integrated data system capable of standardizing data from these options.

An *Integrated Data System* must be developed to provide an efficient and comprehensive means of entering, retrieving and analyzing a variety of data. Data to be stored might include student records, student and program performance data, program participation and descriptive data, and fiscal data. Specific objectives should be to:

- Provide a system to simplify and reduce teacher and local administrative workloads for production and delivery of compliance data.
- Allow consistent coding or translation of data among educational options for comparison and comprehensive planning.
- Ensure value and visibility by "user friendly" entry and recall that make data readily accessible to local as well as state users.
- Provide students, teachers and guidance staff with easy access to individual student records.
- Facilitate computer network arrangements to transfer individual records dealing with need assessments, program participation and eligibility, achievement and certification.
- Protect the personal privacy of individuals whose records are transferred within districts, across districts and to other parts of the state.
- Provide a mechanism for producing routine longitudinal studies of student participation among educational options.

Good data and information about students and programs is a critical cornerstone of effective planning. An Integrated Data System must be developed to provide an efficient and comprehensive means of entering, retrieving and analyzing a variety of data.

This data system would be integrated with other recommendations put forth by this plan.

Recommendation 18

INTEGRATED DATA SYSTEM FOR PROGRAMS AND INDIVIDUALS

Develop a data system to facilitate planning, counseling and accountability among educational options to:

- Help students and educators by giving access to comparable information about educational options.
- Maintain student transcripts in a standardized format.
- Store and provide restricted access to selected non-school data on students (*e.g.* health records, immunization dates, social service records).
- Modernize routine student intake and processing to ease the task of record keeping.
- Generate comprehensive data on program participation, student characteristics, and educational achievement.
- Meet compliance needs by consolidating samples of student data stripped of identifying information to assure confidentiality.

High priority should be placed on ensuring that this data system meets both local and state needs.

Data systems such as the one proposed in this plan have been developed for a number of purposes. The state of Michigan is now in the process of constructing such a system.[33] Data crosswalks developed by the National

[33] ***Countdown 2000: Michigan's Action Plan for a Competitive Workforce***, Governor's Cabinet Council on Human Investment. Adult Literacy Task Force, State of Michigan, March 1988, page 32.

Occupational Information Coordinating Committee (NOICC) and its state affiliates allow processing and analysis of cross-program data. Finally, school districts and educational testing organizations have models for the processing and use of enrollment and student test data.[34]

Linkage of Support Resources

State and community resources from agencies other than school districts should be marshalled to provide support services to eligible students and their families. Some of these support services include transportation, health care, income subsidies and child care. These services could make the difference between whether a student stays in school or whether they live under conditions where it is possible to learn what schools seek to teach.

State and community resources from agencies oher than school districts should be marshalled to provide support services to eligible students and their families.

Recommendation 19

LINKAGE OF SUPPORT RESOURCES

Local Educational Agencies, the California Department of Education and other state agencies should undertake a joint initiative to orchestrate the delivery of cross-agency services that will support students educational achievement. This initiative should establish cross-agency policies and procedures to provide case management and support services to students to:

- Identify and describe support services that can assist students.
- Consolidate information on eligibility requirements for using support services (*e.g.* income subsidies, child care, medical treatment).
- Develop procedures to better identify students eligible for support services, and facilitate access to and use of these services.
- Develop permanent multi-agency task forces to prioritize and marshall use of support services within communities (**see Recommendation 17**).

Where appropriate, efforts to orchestrate and deliver support services should be coordinated through the proposed Comprehensive Counseling, Placement and Certification Services (**see Recommendation 11**), Student Access Card (**see Recommendation 12**), and State and Local Planning Councils (**see Recommendation 17**).

At both the local and state level, cross-agency and public-private initiatives must be established to specify the nature and availability of support systems, and to develop procedures and priorities for insuring that these services are integrated and made available to students most in need. Once these services are specified, information about them must be updated regularly, and ways must be found to link eligible students to services. One approach is to use the proposed *Comprehensive Counseling, Guidance, Placement and Certification Services* (**see Recommendation 11**) and the *Student Access Card* (**see Recommendation 12**) to electronically identify the eligibility of all students,

[34] Susan Cort Johnson, "Computer Tracking Program Improves Education in New York City Schools," uncited new article; Fred Best, Don Cardinal, Jon Ebeling, Maureen Hurley and Barry Stern, ***Follow-Through System Report: Prospectus on Measures and Data Collection Procedures***, prepared for Education Transition Center, California Department of Education, Sacramento, June 1988; and ***Feasibility Plan for a Comprehensive Student Information Study***, California Postsecondary Education Commission in Sacramento, March 1988.

then "flag" specific students who meet established criteria for receiving services.

Linkage of support services should also go beyond resources provided by public agencies. Ways should also be found to more effectively marshall local volunteer services (*e.g.* tutorial programs, youth clubs, "big brother" programs) and business contributions (*e.g.* scholarships, on-the-job-training, part-time jobs) so that they support students who might need and benefit from them the most.

Encouraging Parental Involvement

Study after study has reported that a parent or guardian's involvement is a powerful predictor of how the child is going to do in school.

The fundamental premise of this plan is that improvement of our educational system depends upon the forthright efforts of all stakeholders. The plan presents proposals that increase the impact of each stakeholder, while at the same time increasing the accountability of each stakeholder.

Study after study has reported that a parent or guardian's involvement is a powerful predictor of how the child is going to do in school.[35] What is not as clear is how to effectively and consistently involve parents in the education of their children, and moreover, how to hold parents accountable for involvement. As the child progresses from preschool through to secondary education, contact between teachers and parents tends to decrease. By the time the child reaches high school, lack of positive parental involvement is commonly a major problem for many schools.

For years each side has blamed the other. Parents say the schools do not take them seriously, that they are labeled as "bad" parents when their child presents a problem, that principals and teachers do not want to *listen*, they want to *lecture*. Teachers claim that parents do not reinforce education at home, that parents are not interested in their child's performance—giving social and financial goals priority over their child's education. Further, teachers feel that the task of developing and sustaining parental involvement goes beyond the role of teacher, into the role of social worker.

Barriers to parental involvement include: poverty, logistics, workload of single parenting, lack of child care, embarrassment due to their own lack of education or poor English skills, or the belief that education is the school's responsibility. There is a need for a more positive partnership between parents and schools. Developing this relationship is no small task. It can not be accomplished by a few simple initiatives. Rather, it requires many actions by teachers, parents and the community—most notably an overarching commitment to find ways to build positive working relationships.

Efforts and initiatives must be undertaken to better engage parents in the education of their children. The first step would be to involve parents in the education of their children as early as possible. Second, efforts must be made to maintain and reinvolve parents of high school age youth.

The focus of this plan, student centered education, requires teachers and parents to work together more than ever. Two issues that prevent parent outreach by teachers are: (1) not having enough time, and (2) not wanting to act as a social worker.

[35] Betty Caldwell, Professor of Education, University of Arkansas, in "A Bigger Role for Parents," **Fortune**, Spring 1990, page 25.

Parent outreach is not limited to "home visits." Teachers could recommend a variety of videos for home use (*e.g.* helping your child with math, dealing with drug abuse, choosing a career, talking with your teenager). Students could checkout laptop computers, videos, or a variety of software to be explored at home with the parent. Innovative methods of communication can be initiated (*e.g.* voice-mail or E-mail services through the school).

Efforts and initiatives must be undertaken to better engage parents in the education of their children.

Recommendation 20

ENCOURAGING PARENTAL INVOLVEMENT

Schools and parents must work to encourage parental involvement. Linkage with existing services and consideration of new concepts should be explored:

- **Participation in the Personal Education Plan (PEP).** Parents should participate in the development of their child's PEP, and sign it. This would recognize the parent as part of their child's teaching team, and reinforce their impact on their child's education.
- **Encourage Teacher Outreach to Parents.** The role of teachers should be realigned to allow the time and resources to encourage parents and students to achieve common goals.
- **Linkage with Adult Education Services.** Adult education provides courses in parenting, English-as-a-second-language, and adult basic education, as well as courses to build self-esteem. Teachers and administrators should direct parents to a specific adult education contact persons, and encourage joint child-parent basic skills instruction when appropriate.[36]
- **Training Parents to Participate.** Adult schools should provide "mini-courses" to assist parents in supervising homework, working with teachers, understanding the school system, and accessing support services.
- **Support to Reduce Logistical Barriers.** Districts and parent groups should utilize technology and existing support services to reduce logistical barriers to parental involvement (**see Recommendation 19**).
- **Time Off for Parental Participation.** Business and school districts should provide time off and work scheduling options that allow employees to attend parent-teacher conferences.
- **Consolidate Support Services for Parents.** Arrange representation from social agencies at schools so that parents have "one-stop" access to education and support services.

The development of teachers as coaches and facilitators in the Learning Center concept (**see Recommendations 8 and 14**), as well as instructional technology and electronic student records (**see Recommendations 6 and 12**), will allow teachers time to pursue outreach to parents.

[36] Many resources could support parental involvement. These include classes that reinforce the importance of parental involvement in education, give guidance to parents with difficult teens, and direct parents to the counseling and support services provided by community adult education.

Using community facilities closer to parents' homes—out of the school entirely—has proved beneficial in some districts. Some parents report being intimidated by the school itself. School districts might find a way to regularly gather high school teachers and parents at adult education facilities for day long conferences, workshops, and individual counseling about their child's performance.

Unlike administrators, principals, teachers, students and business, parents are the most difficult to hold accountable for involvement in their child's education. Certainly, parents are responsible to monitor and assess their child's education. Many parents, however can not or do not. There are, however, many parents that try to get involved, but quickly learn there is little offered beyond "advisory" committees. Districts and schools must open their management to include decision-making involvement for parents (**see Recommendation 13**).

Focused attention must be given to involving the business community in determining the skill and knowledge requirements of employment and communicating these expectations to students.

The notion, on both sides, that schools alone hold the responsibility for the education of our youth has not been productive—the academic decline of California students continues. The education of our youth is too important, and the problems too formidable, for teachers to face alone.

Business Compacts to Support Jointly Determined Educational Standards

Focused attention must be given to involving the business community in determining the skill and knowledge requirements of employment and communicating these expectations to students.

Recommendation 21

BUSINESS COMPACTS TO SUPPORT JOINTLY DETERMINED EDUCATIONAL STANDARDS

The State Superintendent of Public Instruction and local superintendents should work with business leaders to establish state and local compacts to support educational standards:

- State and Local Business Compacts should involve representatives of all major public and private employer groups, including small business (which creates most new jobs in our economy).
- Business and educational leaders should work jointly to specify the skills and educational attainment needed for successful entry into the workforce (**see Recommendation 2**).
- State and Local Business Compacts should publicize the educational and skill requirements of employment to school age youth.
- State and Local Business Compacts should also solicit broad-based support among employers to integrate educational standards into firm hiring policy.

Where appropriate, the Compacts should develop a collaborative planning and problem solving partnership between schools and employers.

Broad-based compacts must be established at the state and local levels to develop consensus between schools and the business community concerning the skills and knowledge required for students to gain and keep jobs in specified occupational clusters (*e.g.* factory workers, saleswork, office clerical work). These "specific" skill and knowledge requirements should be energetically published by both schools and employers. More important, employers should make a public compact that they will not hire students who cannot demonstrate that they have achieved required skills and knowledge.

Members of these compacts should also be linked to the proposed *State And Local Planning Councils* (**see Recommendation 17**) to broaden business involvement in setting educational goals for long-term planning. One goal of this planning should be to document student attainment of required skills and knowledge. This information should be recorded on each student's *Student Access Card* to provide certification to prospective employers.

Another goal would be to better coordinate private sector contributions of funds and other resources to secondary education.

As noted previously, the twenty-one recommendations proposed in this report have been developed to achieve multiple payoffs toward the five goals of increasing accountability, developing a system of quality educational options, facilitating student choice, enhancing staff and program support, and improving planning and coordination. While each recommendation has a focused impact toward one of these goals, all have been designed to support other goals (**Exhibit 5.2**).

5.3 How Options Can Meet Common Goals

When integrated, the recommendations proposed by this plan will foster long-term excellence and responsiveness by empowering students as consumers in a market place of educational options. It also proposes that these options be held accountable to measures of performance based on what students learn. Finally, it seeks to build coordination and productive specialization of programs within school systems.

The most important issue is how this plan will serve students and our state in the coming years. A general overview of how the proposed system will work follows:

Tomorrow's school system is built upon a system of educational options within which individual students choose how they intend to meet "core" learning requirements and pursue electives. From the standpoint of the individual student, high school education is organized through a ***Personal Education Plan (PEP)*** developed regularly through ***Comprehensive Counseling, Placement and Certification Services***. These services will be staffed by trained guidance staff and supported by an ***Integrated Data System for Programs and Individuals***. This data system will provide information about available educational options and cumulative records on each student. Each student will also be given a ***Student Access Card***.[37] These credit card-

[37] A prototype of this recommendation, the *Educard*$_{TM}$ (Education Access Card) is currently in the process of being trademarked by the California Department of Education. Application of this technology will be undertaken as a public sector initiative and controlled by public educational agencies.

like devices will have embedded memory chips to electronically store the ***Personal Education Plan*** and other records (test scores, courses completed, demographic characteristics, digitized portfolios of exemplary work, *etc.*) for each student. Standard card readers will allow these data to be accessed by other programs, schools, colleges and possibly employers.

Tomorrow's school system is built upon a system of educational options within which individual students choose how they intend to meet "core" learning requirements and pursue electives.

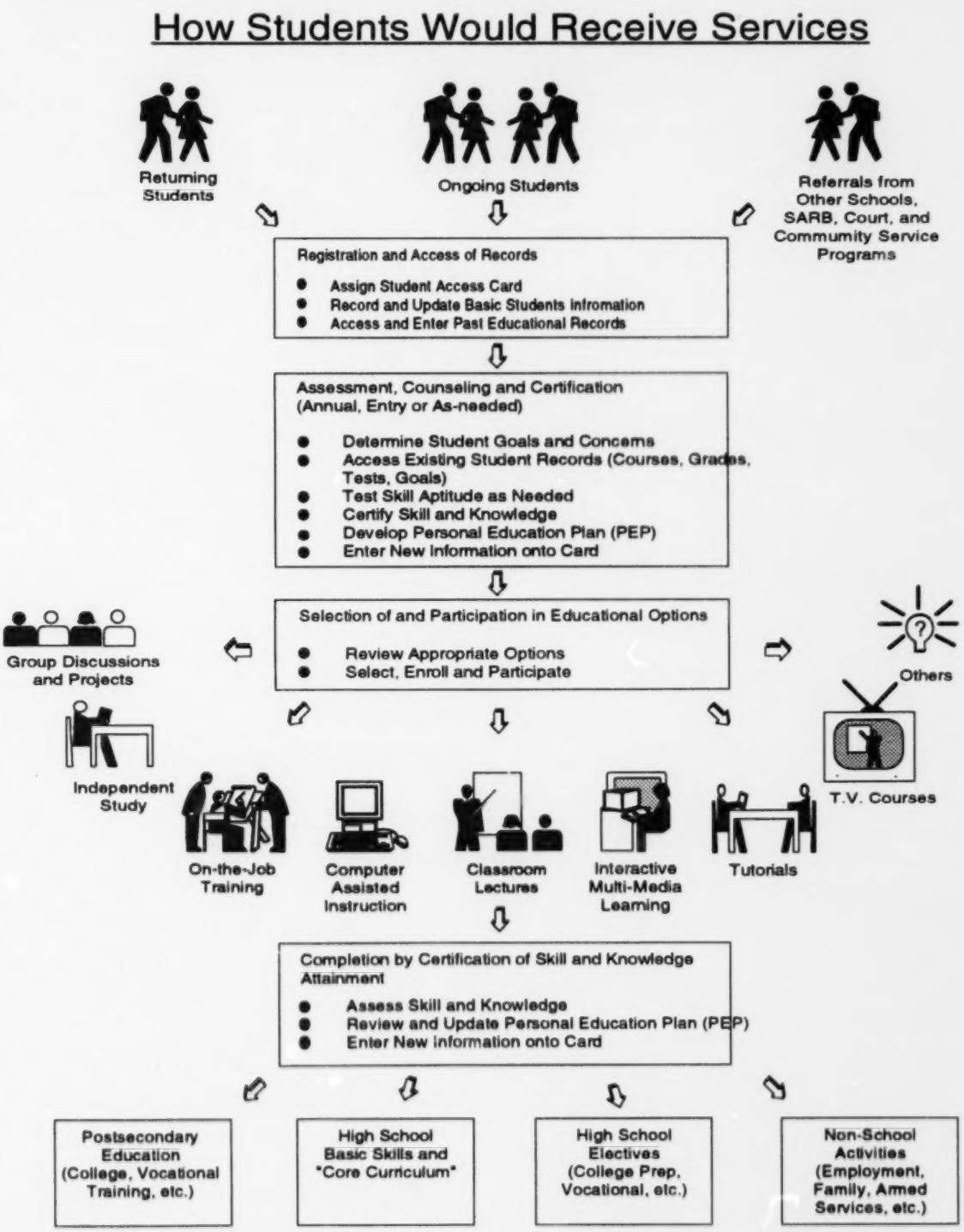
Upon entry into the school system, each student checks in at the ***Comprehensive Counseling, Placement and Certification Service***. If the student is returning or transferring from another school, the counselor will use the student's existing ***Student Access Card*** to access existing records. If the student is entering the school system for the first time, he or she is interviewed for basic background information and educational goals, and then given a ***Student Access Card***. It is also likely that new students will be given a number of assessment tests to determine educational achievements. This will guide the counselor's efforts to assist him or her review and select educational options. Returning or transferring students will presumably have existing records and test scores on their ***Student Access Card***. Depending upon their specific goals or circumstances, it may or may not be necessary to conduct new tests or assessments. If initial or further assessment is given, the results will be recorded onto the student's card and interactively entered into the ***Integrated Data System*** **(Exhibit 5.3)**.

Once assessments determine the needs of the student, a combination of counseling and interactive information technology is used to provide an impartial overview of educational options that may meet the needs and learning styles of the individual student. This will include information such as the educational objectives of the option, modes of instruction, duration and scheduling, location, special features, assessments of past performance, and certification status in accord with state and regional ***"Core Curriculum" for All Educational Options***. Once educational options are presented and discussed, the individual student selects the program that best meets his or her educational goals and preferred mode of learning. A quick check is made to insure that the program has an opening and the student is referred to the program. This "electronic enrollment" is simultaneously recorded in the ***Integrated Data System*** and on the student's card **(Exhibit 5.3)**.

The student "checks in" with the programs of choice. Upon "checking in," the student submits his or her ***Student Access Card***, which is used like a credit card to begin a billing process for services in accord with the most appropriate system of funding. Future funding systems, which have been designed to provide ***Funding Incentives for Program Performance*** and ***Linkage of Funding to Individual Students in Accord with Individual Needs***, allow educational options to charge pre-approved rates for educational services provided under varied conditions and time frames.

Over time, it is expected that ***Policies that Support Educational Options to Enhance Student Achievement*** will lead to the implementation of a variety of programs that allow students choices that ***Support and Enhance the "Core Curriculum."*** These options should provide a variety of learning modes and contexts for the "core curriculum," as well as alternative approaches for the study of elective topics. Many of these options would initiate ***Modes of Instruction to Match the "Information Era"*** by replacing the passive classroom

Exhibit 5.3
HOW STUDENTS WOULD RECEIVE SERVICES


How Students Would Receive Services
Returning Students
Ongoing Students
Referrals from Other Schools, SARB, Court, and Community Service Programs
Registration and Access of Records
Assign Student Access Card
Record and Update Basic Students Infromation
Access and Enter Past Educational Records
Assessment, Counseling and Certification (Annual, Entry or As-needed)
Determine Student Goals and Concerns
Access Existing Student Records (Courses, Grades, Tests, Goals)
Test Skill Aptitude as Needed
Certify Skill and Knowledge
Develop Personal Education Plan (PEP)
Enter New Information onto Card
Selection of and Participation in Educational Options
Review Appropriate Options
Select, Enroll and Participate
Group Discussions and Projects
Others
Independent Study
T.V. Courses
On-the-Job Training
Computer Assisted Instruction
Classroom Lectures
Interactive Multi-Media Learning
Tutorials
Completion by Certification of Skill and Knowledge Attainment
Assess Skill and Knowledge
Review and Update Personal Education Plan (PEP)
Enter New Information onto Card
Postsecondary Education (College, Vocational Training, etc.)
High School Basic Skills and "Core Curriculum"
High School Electives (College Prep, Vocational, etc.)
Non-School Activities (Employment, Family, Armed Services, etc.)

teaching system with technology-supported interactive and individually driven learning. Under these conditions teachers would function as "coaches" and "discussion leaders." In some cases, the traditional course system might be replaced by ***Technology-Supported Learning Centers***, which provide a variety of options for pursuing "core requirements" and electives in general areas of learning (*e.g.* mathematics and science, humanities, civics and social science, physical education). Students seeking to satisfy "core requirements" could attend a center where they might use lectures, discussions, interactive computers, video resources, independent study or authorized offsite experiences. All these modes would require students to master topics that later would be certified by skill and knowledge assessment tools that ***Measure Program Performance by What Students Learn***. Use of such tests would move education out of a "seat time" orientation and create overall scheduling flexibility. This would ***Make Secondary Education a Stage of "Lifelong Learning"*** that continues past age 18. Records of test scores and other measures of educational achievement would be stored on each student's card (**Exhibit 5.3**).

*Major commitment would be given to monitoring and guiding each student by ongoing review, discussion and updating of Personal Education Plans (**PEPs**).*

Upon completion of courses or programs by students, the prescribed cost for participation and test scores are entered into the ***Integrated Data System*** as a prerequisite for final payment to the school district and certification of skills for the student. The system designed to ***Provide Funding Incentives for Program Performance*** and ***Linkage of Funding to Individual Students in Accord with Needs*** would provide bonus payments for agreed-upon excellence in skill achievement by students and for special services based on the "categorical" needs of individual students (**Exhibit 5.3**).

The essential organizing principle for this system of educational options would be the ***Comprehensive Counseling, Placement and Certification Services***. Major commitment would be given to monitoring and guiding each student by ongoing review, discussion and updating of ***Personal Education Plans*** (**PEPs**). This process would occur regularly every year or half year, or when transfer or special circumstances dictate. This process will be expedited by time and labor saving technologies such as the ***Student Access Card*** and ***Integrated Data System***. A key goal of this information system would be to insure that students are not lost as they move among programs, within school districts or across the state.

The above services are provided within the context of policies and program support services developed through ***State and Local Planning Councils*** involving education providers, business and other stakeholders. Prospective areas of responsibility for these councils would be to advise on the implementation and maintenance of the common or "core" elements of recommendations dealing with ***"Core Curriculum" for all Educational Options, Program Performance by What Students Learn, Provide Funding Incentives for Program Performance, Linkage of Funding to Individual Students in Accord with Needs, Personal Education Plans, Comprehensive Counseling, Placement and Certification Services, Student Access Card***, and ***Integrated Data Systems for Programs and Individuals***.

The above process and supporting components are intended to make schools flexible centers of learning in which each student can pursue different roads to an individual future, based upon mastery of "core" skills and knowledge. It is intended to use information technology to increase the capacity of schools to communicate the options available to students, coordinate programs and students, and increase local school flexibility by substituting learning standards for time and place compliance requirements.

5.4 Is It Possible?

Is it possible to implement the types of changes advocated in this chapter? Yes, but not overnight.

Everything proposed in this chapter is possible today. Nonetheless, it will take time and adequate resources. The barriers to implementation are not simply technical. These proposals are new ideas, and therefore vulnerable to misunderstanding and confusion. Further, there are complex issues of equity and long-standing competition among the providers that must work together.

The success of a plan such as this depends heavily upon the development of a problem-solving partnership among stakeholders.

Even if there were unquestioned support and generous resources for development and implementation, the task would take many years. The number of technical details to be worked out, discussed, tested, and explained are staggering.

The success of a plan such as this depends heavily upon the development of a problem-solving partnership among stakeholders. Concerns and varying points of view must be communicated directly, but as problems to be solved fairly rather than contests of political will.

One of the greatest forces in favor of success is the cost of inaction. California business spends billions of dollars on training, and looses billions more due to lost productivity resulting from inadequate worker skills. Approximately a quarter of our state's population is ill-equipped with the skills needed for work and life—not the least of which is the rearing of educated children. There is a common ground of educational needs that must be met.

The proposals in this plan are an image of the future—essentially working hypotheses to guide current efforts to improve services and outcomes. All of its component proposals may not be implemented by the 21st Century. But we cannot have a better educational system tomorrow if we do not put our best ideas forward today. And our best ideas of today will not become the realities of tomorrow unless we marshall commitment and resources to the task of making them work.

CHAPTER

6 Steps to Tomorrow

The recommendations of this plan can be brought to fruition by building incrementally with a long-term vision and working through a partnership of key stakeholders.

There are two essential prerequisites for implementing this plan. First, resources and technical skills must be marshalled to develop an integrated workplan for implementing the proposed recommendations. Second, a spirit of cooperation and commitment must be developed among key stakeholders.

This chapter discusses ways to begin making the recommendations of this plan a reality. It has three sections:

(1) Building the Future on Today's Foundation

(2) An Alliance for Quality Education

(3) Tomorrow Is Made Today

Focus is given to finding ways of involving local school districts in "first steps" toward the goals of this plan.

6.1 Building the Future on Today's Foundation

We propose that this plan be implemented incrementally—in steps designed to produce real results and in ways that are compatible with long-term goals and recommendations.

The purpose of this plan, as well as the advisory and outreach process that produced it, has been to determine the long-term needs of California youth, develop comprehensive responses to these needs, then work backward to determine the steps that must be taken to implement such a response.

The primary task of implementing this plan must take place where students learn—the school. There are important roles for the state—particularly in setting common objectives, establishing standard formats for information, taking advantage of economies of scale to develop resources such as instructional technology, and fostering an ongoing dialogue on the future of education. However, the actual changes of approaches, people, facilities and resources must be accomplished within schools and districts.

We propose that this plan be implemented incrementally—in steps designed to produce real results and in ways that are compatible with long-term goals and recommendations.

First Steps

A logical first step is to build upon the successes of the present. Existing practices and innovations throughout the state have been reviewed to identify those that meet two criteria:

- **High Potential for Success.** Practices and proposals that are practical, doable and hold high promise for producing positive results toward the broad goals of this plan.

- **Consistency with Plan.** Practices and proposals that are consistent with the goals and recommendations of this plan—implementation will dovetail and support rather than be divergent and inconsistent with long-term directions.

Particular attention has been placed on selection of "first steps" that can be blended with twenty-one recommendations put forth in the previous chapter (see **Exhibit 6.1**).

We propose that action be focused in three areas to implement the "first steps" of this plan:

- **Select and Organize Pilot Sites.** The California Department of Education (CDE) should select a limited number of pilot sites from schools or school districts with a commitment to implement the long-term goals and recommendations of this plan. Technical assistance would be provided to conduct school-level workshops that would explain the plan and identify practical areas for "first step" implementation.

The California Department of Education (CDE) should select a limited number of pilot sites from schools or school districts with a commitment to implement the long-term goals and recommendations of this plan.

- **Pilot Site Implementation of "First Steps."** Pilot sites would establish Local Planning Councils comprised of educators, business, parents and other community stakeholders (see **Recommendation 17**). These councils would organize broad-based support and involvement, and plan the specific implementation of "first steps."

- **State Support.** The California Department of Education would support the ongoing strategic planning process in four ways. First, it would use its resources to move forward on recommendations that either require state leadership or merit state involvement to obtain "economies of scale" (*e.g.* definition of "core curriculum," design of standardized performance measures, development of instructional technology and model information systems). Second, it would provide staff and convening resources to monitor local pilot site activities, and facilitate communication and sharing among pilot sites. Third, it would prepare reports and resource materials on the "first steps" and disseminate these to interested schools. Fourth, it would convene a participatory review of "first step" initiatives and planning process for "second steps."

At the end of the first step stage, working models of initial actions should be established, information about the nature and impacts should be disseminated among interested stakeholders.

Second Steps

"Second steps" should be built upon "first steps." Information about the success or failure of "first steps" and new ideas stimulated by the "first step" process should be integrated into the planning of future action. This will require the involvement of state and local educational agencies, and the participation of all major stakeholders.

Exhibit 6.1

First Steps for Implementing Strategic Recommendations

The success of the strategic plan requires identification of practical first steps that build toward long-term goals.

Long-Term Strategic Recommendations:	First Steps for Implementation:
Increase Accountability:	
(1) **Support and Enhance the "Core Curriculum" for All Educational Options**	(1) **Requird district-wide commitment to "core curriculum" for all educational options:** Use school-based task forces to determine the extent the core curriculum is currently being emphasized with particular attention to ESL and language acquisition. Identify the performance standards being employed, and develop implementation plans for core curriculum units that are not currently covered. Share findings at the district superintendent level so that a district-wide program can be developed and implemented.
(2) **Set Standards and Expectations for "All" Students**	(2) **Adopt and publicize district employer/community college competency standards:** Employer and community college representatives will identify competency standards for high school graduates. Existing business/educational competency systems will be reviewed and additional competencies and standards developed. These standards will be built into the application process of community colleges and will be an integral part of employers' entry level qualifications. Efforts will be made to disseminate these standards.
(3) **Measure Program Performance by What Students Learn**	(3) **Explore use of standardized test (CHSPE-like) and CAPs "authentic assessment pilots" to determine individual student achievement in each "core curriculum" area:** Explore the applicability of existing skill and knowledge assessment systems to test competencies required by the "core curriculum." These should accommodate the needs of LEP students. It should also include a variety of assessment methodologies, including multiple-choice paper-pencil tests, and "authentic assessment" techniques *(i.e.* criterion referenced tests that measure students' competencies in a functional or "applied" context). If existing systems are not applicable for such a standardized examination, system criteria should be identified, and a new assessment system developed.
(4) **Funding Incentives for Program Performance**	(4) **Seek legislative approval to pilot test non-ADA, performance-based funding:** Identify and evaluate performance-based funding systems associated with existing educational programs (*e.g.* JTPA-supported education and job training programs).

Exhibit 6.1, *continued next page*

Exhibit 6.1

First Steps for Implementing Strategic Recommendations

Continued

Long-Term Strategic Recommendations:	First Steps for Implementation:
Develop a System of Quality Educational Options:	
(5) **Policies that Support Educational Options to Enhance Student Achievement**	(5) **Enact district policies that recognize educational options are essential parts of high school and require these options must meet "core curriculum" standards:** Catalog at a district level, all the educational options that exist, what educational services are provided, and by what criteria students are provided by these options. Establish district policy that high school education will be provided via a system of options to be chosen by students as long as all options rigorously maintain the educational standards specified in the "core curriculum."
(6) **Modes of Instruction to Match the "Information Era"**	(6) **Establish demonstration of providing "core curriculum" through a variety of instructional modes:** Identify instructional delivery techniques beyond traditional lecture method. Such techniques would include various "active learning" methods: group discussion featuring group and individual critical thinking and problem-solving components, or instruction tailored to real life situations. Identify schools and programs that use instructional technology, including interactive computer and video programs, or distance learning programs delivered via cable television or satellite. Publicize the existence of these "options" to students and teachers, and conduct workshops to make faculty aware of alternative approaches. Identify and evaluate "schools-within-a-school" format.
(7) **Integrate Secondary Education with the Concept of "Lifelong Learning"**	(7) **Articulate requirements of high school education among all providers and inform students of options beyond 4-year framework:** Program information on all postsecondary options for completing high school should be collected and made available to high school students. Linkage between high school and postsecondary programs will be facilitated through the use of the core competencies and universal transcript as a criterion for admission. Experiment with more flexible weekly and daily scheduling of instruction outside the model six or seven class school day.

Exhibit 6.1, *continued next page*

Exhibit 6.1

First Steps for Implementing Strategic Recommendations

Continued

Long-Term Strategic Recommendations:	First Steps for Implementation:
(8) **Support the Evolution of Classrooms into Technology-Supported Learning Centers**	(8) **Expand existing "career center" model to include exploration of knowledge, aptitudes and life options:** Through print materials or self-directed career exploration computer programs, enhance career guidance services currently provided in school career centers beyond providing career information. Career services need to be enhanced and combined with student exploration and self-assessment of their knowledges and aptitudes, career/educational counseling, and program/life planning services. The development and use of multi-media interactive computer and video programs, designed for these purposes, should be explored. Experiment with the combination of instructional technology and "open classroom" techniques to provide exploratory learning centers that meet standards specified in the "core curriculum."
(9) **Link Funding to Individual Students in Accord with Needs**	(9) **Evaluate existing procedures and proposals for linking funding to students in accord with individual needs:** Identify the "level of difficulty" or "level of services needed" to provide for core competency acquisition, within a "regular education" program, and for students of various needs (including "special needs"). Use thisinformation to develop proposals for proportionate and increased funding to students who require more enriched or enhanced educational services *within the regular program (as opposed to services funded through separate categorical programs)*.
Facilitate Student Choice and Achievement:	
(10) **Personal Education Plans (PEPs)**	(10) **Expand grade 10 counseling model activities to include annual revision of student goals, achievement and educational plans. Use information technology to better inform students of available educational options:** Develop a primary format for the content and form of Personal Education Plans (**PEPs**). Initiate through existing counseling services a policy of developing and reviewing these plans once a year for all students or a random sample of students within a school district. Development of these plans should involve parents and non-school agencies as appropriate. Once these services are established, the feasibility of offering these services to all students annually should then be evaluated. The use of personnel other than high school counselors as "education advisors" for this process miht also be explored.

Exhibit 6.1, *continued next page*

Exhibit 6.1

First Steps for Implementing Strategic Recommendation
Continued

Long-Term Strategic Recommendations:	First Steps for Implementation:
(11) Educational Counseling, Guidance, Placement and Certification Services	**(11) Establish an annual counseling and goal setting report for all students:** Make services available annually similar to those provided in tenth grade counseling services (as described above). The major outcome of this annual counseling will be a *Personal Education Plan* (**PEP**) for each student. This PEP should include education and career goals, needed post-graduate college preparation or non-college career preparation, and short- and long-range plans to achieve these goals. Efforts should also be made to provide students and parents with information about all available educational options. The feasibility of developing a PEP computer program and data base should be explored. This package would contain information about educational course configurations, occupational career ladders, and related training programs.
(12) Education Access Card	**(12) Link pretest of Adult Education *EduCard* to selected high school programs with provisions for Personal Education Plans :** Design a prototype *Personal Education Plan* (**PEP**) where PEP student information is compatible with data elements contained in the Adult Education Integrated Data System, as developed for the *EduCard* Pretest project (The *EduCard* is currently under development as an adult learner "access card" that uses smart card technology).
Enhance Staff and Program Support:	
(13) Participative Management within Schools and Districts	**(13) Use C-LERN management training components to increase participants' school impact:** Field test "participatory management" models in current C-LERN Schools. For example, establish a "School Coordinating Council" as a planning and advisory group consisting of principals and teachers. The Council would provide a mechanism for the participation of teachers in critical educational decisions.
(14) Staff and Program Support for Innovation	**(14) Use C-LERN program support options to encourage staff development and innovation:** Promote innovative approaches, such as team teaching or the delivery of instruction via mini-schools or "schools-within-schools." Teachers would be encouraged to organize teacher teams to help implement these mini-schools. In addition, targeted staff development programs will be provided by mentor teachers or experts in the area. Mini-schools would deliver specialized intensive instruction in selected areas according to teacher's preference, expertise and training.

Exhibit 6.1, *continued next page*

Exhibit 6.1

First Steps for Implementing Strategic Recommendations
Continued

Long-Term Strategic Recommendations:	First Steps for Implementation:
(15) Initiatives to Increase Use of Educational Technology	**(15) Link with programs established by California's *Educational Technology Act* to develop software and apply instructional technologies:** Set up demonstration sites at schools and programs who have been in partnership with private vendors in the development of instructional technology and software as a result of the *Educational Technology Act*. Staff development programs on the use of educational technology also should be designed and delivered.
(16) Encourage Racial and Ethnic Diversity within Teaching Staffs	**(16) Initiate district outreach and teacher training programs to encourage recruitment of minorities:** Work with the business community to provide scholarships or other incentives to qualified college minority students who make a commitment to teach in areas with critical minority teacher shortages. Initiate paid part-time teaching assistant jobs for high achieving college and high school students.
Improve Planning, Coordination and Linkage:	
(17) State and Local Planning Councils	**(17) Integrate and institutionalize the high school task force and educational options advisory committees:** Establish a permanent Education Options Advisory Council at the state level that would make recommendations on educational policy. Also link this state council to similar local councils established to plan and implement district level tests of the Strategic Plan for Educational Options. Design job description, rationale and workplan for establishing one or more positions within the California Department of Education to provide support for these activities.
(18) Integrated Data System for Programs and Individuals	**(18) Link pretest of Adult Education *EduCard* to selected high school programs with provisions for Personal Education Plans (PEP).** Link high school and adult education programs in the "*EduCard* Pretest Project" (as described earlier). For high school students feeding into adult education programs, prototype *Personal Education Plans* could be generated using student information added to the adult education integrated data base.

Exhibit 6.1, *continued next page*

Exhibit 6.1

First Steps for Implementing Strategic Recommendations

Continued

Long-Term Strategic Recommendations:	First Steps for Implementation:
(19) Linkage of Community Resources	**(19) Include representatives from non-school district educators and social service institutions in planning process:** Invite representatives from various non-school and social service agencies that affect families of high school students to participate in the "Advisory Councils" proposed above. Initially, such representatives would identify and clarify the services provided and make recommendations on service articulation and student referral processes.
(20) Encouraging Parental Involvement	**(20) Encourage parental involvement:** Involve existing parent organizations in an effort to contact each parent in the school for ideas (*e.g.* parent survey). Enlist teacher, parent and administrative support to list videos, books and conferences available to parents through the district.
(21) Business Compacts to Support Jointly Determined Educational Standards	**(21) Enlist broad-based business support to inform students of minimum educational attainment required for employment skills, aptitudes and competencies:** Involve business in the identification of core competencies that should be acquired by all high school students. Involve business in the use of a universal transcript as one of their hiring criteria (as described earlier).

6.2 An Alliance for Quality Education

This plan proposes a full partnership among educators, parents, students, business and other stakeholders. The purpose of this partnership is to make educational options a focal element of tomorrow's high schools.

Agreement must be forged among key stakeholders before meaningful movement can begin toward the proposed strategic goals. The concept of participation and cooperation among stakeholders is an essential theme of this plan. Such a partnership can take many forms. Thus, it is important to outline ground rules for the type of common effort that will be necessary to ensure the success of this plan.

This plan proposes a full partnership among educators, parents, students, business and other stakeholders. The purpose of this partnership is to develop an infrastructure of institutional arrangements and information technologies that will improve the content and delivery of educational services. It may not be possible to build comprehensive partnerships at first. However, it is possible to establish working guidelines that will build such participation over time. The key ingredients of such an approach follow:

- **Neutral Ground.** Participation and cooperation must be forged through discussions and vehicles which have neutral standing to all parties. A balance must be forged to insure open discussion and opportunities for all stakeholders to participate fully.

- **Inclusion of All Key Stakeholders.** Every effort must be made to enlist involvement and contribution of resources from all stakeholders. These include state and local educational agencies, business, parents, community organizations, unions and noneducational public agencies. Ways must also be found to involve not only these stakeholder groups, but the constituents of each group (*e.g.* subcommittees of teachers, administrators, counselors, students, *etc.*).

- **Influence Based on Contribution.** The direction of cooperative efforts should be controlled by those contributing resources, but the door should always be open for the involvement of stakeholders who wish to contribute proposals and viewpoints.

- **Linkage Between State and Local Stakeholders.** Participation among stakeholders must reflect and facilitate communication and joint responsibilities between the state and local levels.

- **Fact-Based and Problem-Solving Process.** Participating stakeholders must avoid adversarial conflicts in favor of a fact-based and problem-solving approach to developing creative solutions to common problems.

- **Flexibility to Recognize and Involve New Stakeholders.** Participants must retain the flexibility to recognize and involve new stakeholders that may emerge in the future.

The ultimate success of this plan depends upon the development of an open and fair partnership that combats defensiveness and polarization among those holding a stake in the education of youth.

6.3 Tomorrow Is Made Today

In many ways, this plan addresses issues beyond the mechanical arrangements it proposes. It is also intended to provide a crisp and exciting image of what education can be and, we hope, invigorate widespread commitment to learning.

Stakeholders in the future of secondary education—whether they be education providers, businesses, parents, students or concerned citizens— must develop a collective will to act today to meet the educational needs of tomorrow.

Education and learning must equip us, as individuals and a society, with the basic skills to be productive within our economy and function with dignity in our society. This is clearly a priority for California in the 1990's. However, education and learning should also enhance the human spirit and enrich our existence. If this is not an economic necessity, it is clearly one of the most important reasons for our economic toil.

The initiatives proposed in this plan are far-reaching and innovative. Further, they have been developed with an eye to the technological resources that will be available and affordable in coming years. Despite the far reaching nature of this plan, every recommendation set forth is both affordable and technically possible today.

Technical skill and resources will be critical to achieving these goals. However, they are not the most critical ingredient. The most essential ingredient will be the ability of our state to meet wide-scale educational needs with an equally wide-scale response. Stakeholders in the future of secondary education—whether they be education providers, businesses, parents, students or concerned citizens—must develop a collective will to act today to meet the educational needs of tomorrow.

Publications Available from the Department of Education

This publication is one of over 600 that are available from the California Department of Education. Some of the more recent publications or those most widely used are the following:

Item No.	Title (Date of publication)	Price
1063	Adoption Recommendations of the Curriculum Development and Supplemental Materials Commission, 1992: California Basic Instructional Materials in Science (1992)	$5.50
0883	The Ages of Infancy: Caring for Young, Mobile, and Older Infants (videocassette and guide) (1990)*	65.00
0973	The American Indian: Yesterday, Today, and Tomorrow (1991)	6.50
1012	Attendance Accounting and Reporting in California Public Schools (1991)	5.50
1079	Beyond Retention: A Study of Retention Rates, Practices, and Successful Alternatives in California (1993)	4.25
0972	California Assessment Program: A Sampler of Mathematics Assessment (1991)	5.00
0912	California State Plan for Carl D. Perkins Vocational and Applied Technology Education Act Funds, 1991–1994 (1991)	13.00
1067	California Private School Directory, 1993-94 (1993)	16.00
1074	California Public School Directory (1993)	16.00
1017	California State Plan for the Child Care and Development Services Funded Under Federal Block Grant (1991)	5.50
1036	California Strategic Plan for Parental Involvement in Education (1992)	5.75
0488	Caught in the Middle: Educational Reform for Young Adolescents in California Public Schools (1987)	6.75
0874	The Changing History–Social Science Curriculum: A Booklet for Parents (1990)	10/5.00†
1053	The Changing History–Social Science Curriculum: A Booklet for Parents (Spanish) (1993)	10/5.00†
0867	The Changing Language Arts Curriculum: A Booklet for Parents (1990)	10/5.00†
0928	The Changing Language Arts Curriculum: A Booklet for Parents (Spanish Edition) (1991)	10/5.00†
0777	The Changing Mathematics Curriculum: A Booklet for Parents (1989)	10/5.00†
0891	The Changing Mathematics Curriculum: A Booklet for Parents (Spanish Edition) (1991)	10/5.00†
1072	Commodity Administrative Manual (1993)	13.00
0978	Course Models for the History–Social Science Framework, Grade Five—United States History and Geography: Making a New Nation (1991)	8.50
1034	Course Models for the History–Social Science Framework, Grade Six—World History and Geography: Ancient Civilizations (1993)	9.50
1045	Discoveries of Infancy: Cognitive Development and Learning (videocassette and guide) (1992)*	65.00
0976	Economic Education Mandate: Handbook for Survival (1991)	7.75
1046	English-as-a-Second-Language Model Standards for Adult Education Programs (1992)	7.00
0041	English–Language Arts Framework for California Public Schools (1987)	5.00
0927	English–Language Arts Model Curriculum Standards: Grades Nine Through Twelve (1991)	6.00
0987	ESEA, Chapter 2, Manual of Information (1991)	5.00
1056	Essential Connections: Ten Keys to Culturally Sensitive Care (videocassette and guide) (1993)*	65.00
1011	Exemplary Program Standards for Child Care Development Programs Serving Preschool and School-Age Children (1991)	5.50
0751	First Moves: Welcoming a Child to a New Caregiving Setting (videocassette and guide) (1988)*	65.00
0839	Flexible, Fearful, or Feisty: The Different Temperaments of Infants and Toddlers (videocassette and guide) (1990)*	65.00
0804	Foreign Language Framework for California Public Schools (1989)	6.50
0809	Getting in Tune: Creating Nurturing Relationships with Infants and Toddlers (videocassette and guide) (1990)*	65.00
1080	Guide and Criteria for Program Quality Review—Elementary (1993)	9.00
1078	Guide and Criteria for Program Quality Review—Middle Level (1993)	10.00
0986	Handbook for Teaching Korean-American Students (1991)‡	5.50
0734	Here They Come: Ready or Not—Report of the School Readiness Task Force (Full Report) (1988)	5.50
0712	History–Social Science Framework for California Public Schools (1988)	7.75
0750	Infant/Toddler Caregiving: An Annotated Guide to Media Training Materials (1989)	9.50
0878	Infant/Toddler Caregiving: A Guide to Creating Partnerships with Parents (1990)	10.00
0880	Infant/Toddler Caregiving: A Guide to Language Development and Communication (1990)	10.00
0877	Infant/Toddler Caregiving: A Guide to Routines (1990)	10.00
0879	Infant/Toddler Caregiving: A Guide to Setting Up Environments (1990)	10.00
0876	Infant/Toddler Caregiving: A Guide to Social–Emotional Growth and Socialization (1990)	10.00
1070	Instructional Materials Approved for Legal Compliance (1993)	10.50
1024	It's Elementary! Elementary Grades Task Force Report (1992)	6.50
0869	It's Not Just Routine: Feeding, Diapering, and Napping Infants and Toddlers (videocassette and guide) (1990)*	65.00
1107	Literature for History–Social Science, Kindergarten Through Grade Eight (1993)	8.00

*Videocassette also available in Chinese (Cantonese) and Spanish at the same price.

†The price for 100 booklets is $30; the price for 1,000 booklets is $230. A set of one of each of the parent booklets in English is $3; a set in Spanish is also $3.

‡Also available at the same price for students who speak Cantonese, Japanese, Pilipino, and Portuguese.

Item No.	Title (Date of publication)	Price
1066	Literature for Science and Mathematics (1993)	$9.50
1033	Mathematics Framework for California Public Schools, 1992 Edition (1992)	6.75
0929	Model Curriculum Standards, Grades Nine Through Twelve (1985)	5.50
0968	Moral and Civic Education and Teaching About Religion (1991 Revised Edition)	4.25
0969	Not Schools Alone: Guidelines for Schools and Communities to Prevent the Use of Tobacco, Alcohol, and Other Drugs Among Children and Youth (1991)	4.25
0974	Parent Involvement Programs in California Public Schools (1991)	6.75
0845	Physical Education Model Curriculum Standards, Grades Nine Through Twelve (1991)	5.50
1032	Program Guidelines for Individuals Who Are Severely Orthopedically Impaired (1992)	8.00
0906	Quality Criteria for High Schools: Planning, Implementing, Self-Study, and Program Quality Review (1990)	5.00
0979	Readings for the Christopher Columbus Quincentenary (1992)	2.75*
1048	Read to Me: Recommended Readings for Children Ages Two Through Seven (1992)	5.50
0831	Recommended Literature, Grades Nine Through Twelve (1990)	5.50
0895	Recommended Readings in Spanish Literature: Kindergarten Through Grade Eight (1991)	4.25
0753	Respectfully Yours: Magda Gerber's Approach to Professional Infant/Toddler Care (videocassette and guide) (1988)†	65.00
1042	School Nutrition Facility Planning Guide (1992)	8.00
1038	Science Facilities Design in California Public Schools (1992)	6.25
0870	Science Framework for California Public Schools (1990)	8.00
1040	Second to None: A Vision of the New California High School (1992)	5.75
0926	Seeing Fractions: A Unit for the Upper Elementary Grades (1991)	7.50
0970	Self-assessment Guide for School District Fiscal Policy Teams: Facilities Planning and Construction (1991)	4.50
0980	Simplified Buying Guide: Child and Adult Care Food Program (1992)	8.50
0752	Space to Grow: Creating a Child Care Environment for Infants and Toddlers (videocassette and guide) (1988)†	65.00
1014	Strategic Plan for Information Technology (1991)	4.50
1043	Success for Beginning Teachers: The California New Teacher Project, 1988–1992 (1992)	5.50
0920	Suggested Copyright Policy and Guidelines for California's School Districts (1991)	3.00‡
1044	Together in Care: Meeting the Intimacy Needs of Infants and Toddlers in Groups (videocassette and guide) (1992)†	65.00
0846	Toward a State of Esteem: The Final Report of the California Task Force to Promote Self-esteem and Personal and Social Responsibility (1990)	5.00
0758	Visions for Infant/Toddler Care: Guidelines for Professional Caregiving (1989)	6.50
0805	Visual and Performing Arts Framework for California Public Schools (1989)	7.25
1016	With History–Social Science for All: Access for Every Student (1992)	5.50
0989	Work Permit Handbook (1991)	7.75
1073	Writing Assessment Handbook: High School (1993)	9.25

*Also available in quantities of 10 for $7.50 (item number 9875); 30 for $20 (9876); and 100 for $60 (9877).
†Videocassette also available in Chinese (Cantonese) and Spanish at the same price.
‡Also available in quantities of 10 for $12.50 (item number 9940); 50 for $55 (9941); and 100 for $100 (9942).

Orders should be directed to:

California Department of Education
Bureau of Publications, Sales Unit
P.O. Box 271
Sacramento, CA 95812-0271

Please include the item number for each title ordered.

Mail orders must be accompanied by a check, a purchase order, or a credit card number, including expiration date (VISA or MasterCard only). Purchase orders without checks are accepted from governmental agencies only. Telephone orders will be accepted toll-free (1-800-995-4099) for credit card purchases only. Sales tax should be added to all orders from California purchasers. Stated prices, which include shipping charges to anywhere in the United States, are subject to change.

A complete list of publications available from the Department, including apprenticeship instructional materials, may be obtained by writing to the address listed above or by calling (916) 445-1260.

93-24 CR 302936 1-94 200

BEST COPY AVAILABLE

ISBN 0-8011-1118-8